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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Comprehensive Assessment Information Rule
REPORTING FORM

When completed, send this form to:

Document Processing Center
Office of Toxic Substances, TS-790
U.S. Environmental Protection Agency
401 M Street, SW
Washington, DC 20460
Attention: CAIR Reporting Office

For Agency Use Only:

Date of Receipt: _____

Document
Control Number: _____

Docket Number: _____

CAIR REPORTING FORM CHECKLIST

THIS CHECKLIST IS NOT REQUIRED TO BE SUBMITTED,
IT IS FOR RESPONDENT'S INTERNAL USE ONLY

This form is intended to gather information on a specific listed substance that is manufactured, imported, or processed at one facility. Respondents must answer only those sections or specific questions required in the CAIR rule.

Respondents may use the same form each time they must report. The original copy of the form received by respondents should be kept on file and used to make copies of the questions required to be answered. These copies may then be circulated to those employees who will complete the form. Respondents must submit only one copy of each question rather than compiling parts of each question from various employees and submitting them together as one question.

Respondents need only supply information on the form that is "known to or reasonably ascertainable by" the respondent. Refer to the glossary for this definition. All reports with incomplete responses will be assessed as invalid and a Notice of Noncompliance Error Letter and a copy of the question will be sent to you for completion.

Before completing any portion of this form, please read the instruction booklet. The booklet contains general instructions on how to comply with the rule, supplemental instructions and sample answers for many questions, and a glossary containing definitions of key terms. Refer to the glossary whenever an unknown term appears to examine the definition provided.

If you cannot determine your reporting obligations, you should call the TSCA Assistance Office, U.S. EPA, at (202) 554-1404. To obtain additional forms, write to the TSCA Assistance Office (TS-779), ATTN: CAIR Form Request, Office of Toxic Substances, Environmental Protection Agency, Room E-543, 401 M St., SW, Washington, DC 20460, or call at (202) 554-1404.

BEFORE RETURNING YOUR COMPLETED CAIR FORM PLEASE CHECK THE FOLLOWING:

- ____ 1. Have you completed and included Section 1 for each form you are submitting?
- ____ 2. Have you submitted a standard chemical name and Chemical Abstract Service Registry Number for each chemical you are reporting on?
- ____ 3. Does your submitted form include the original certification signatures as required for questions 1.06, 1.07, and 1.08?

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- ____ 4. Have you submitted a completed separate form for each substance you are required to report on?
- ____ 5. Have you submitted a completed separate form for each site at which you manufacture, import, or process a listed substance?
- ____ 6. For each listed substance you must report on, have you reported on all activities you engage in at each site using the listed substance on the same reporting form?
- ____ 7. If you are claiming information as Confidential Business Information (CBI), have you completed the CBI substantiation form in Appendix II of the form for each category containing CBI? Failure to submit a completed CBI substantiation form with a reporting form containing CBI will result in the waiver of your claim of confidentiality.
- ____ 8. For each question that you are required to answer, have you responded by either providing the data, stating not applicable ("N/A"), or, if the question permits, stating unknown ("UK")?
- ____ 9. Have you right justified your responses to questions asked that require respondents to give a numeric response in a series of boxes (e.g., the answer "372" is entered as [0][0][3][7][2])?
- ____ 10. Have your responses been given in alpha, numeric or alpha-numeric form such as 3 million or 3,000,000? Responses must not be given in scientific notation such as 3×10^6 .
- ____ 11. If you needed additional space to report the required data, have you checked the continuation sheet box at the bottom of each page that requires additional space; attached additional copies of the specific questions of this form that contain additional information; and listed the attachments in Appendix I of the reporting form?

PART A GENERAL REPORTING INFORMATION

CBI

- b. If a chemical substance CAS No. is not provided in the Federal Register, list either (i) the chemical name, (ii) the mixture name, or (iii) the trade name of the chemical substance as provided in the Federal Register.

(iii) Trade name as listed in the rule STEPAN FOAM C-614-T

Name of chemical substance

X/P processor reporting for customer who is a processor 5

3

1.03 Does the substance you are reporting on have an "x/p" designation associated with it in the above-listed Federal Register Notice?

CBI

☐ Yes ☒ Go to question 1.04

☐ No ☐ Go to question 1.05

1.04 a. Do you manufacture, import, or process the listed substance and distribute it under a trade name(s) different than that listed in the Federal Register Notice? Circle the appropriate response.

CBI

☐ Yes 1

☐ No 2

b. Check the appropriate box below: N/A

☐ You have chosen to notify your customers of their reporting obligations

Provide the trade name(s)

☐ You have chosen to report for your customers

☐ You have submitted the trade name(s) to EPA one day after the effective date of the rule in the Federal Register Notice under which you are reporting.

1.05 If you buy a trade name product and are reporting because you were notified of your reporting requirements by your trade name supplier, provide that trade name.

CBI

☐ Trade name STEPANFOAM C-614-T

Is the trade name product a mixture? Circle the appropriate response.

Yes 1

No 2

1.06 Certification -- The person who is responsible for the completion of this form must sign the certification statement below:

CBI

☐ "I hereby certify that, to the best of my knowledge and belief, all information entered on this form is complete and accurate."

Glen C. Wightman

NAME

Glen C. Wightman

SIGNATURE

11-21-89

DATE SIGNED

Senior Engineer

TITLE

(201) 771 - 4649

TELEPHONE NO.

☐ Mark (X) this box if you attach a continuation sheet.

- 1.07 Exemptions From Reporting -- If you have provided EPA or another Federal agency with the required information on a CAIR Reporting Form for the listed substance within the past 3 years, and this information is current, accurate, and complete for the time period specified in the rule, then sign the certification below. You are required to complete section 1 of this CAIR form and provide any information now required but not previously submitted. Provide a copy of any previous submissions along with your Section 1 submission.

CBI

☐

"I hereby certify that, to the best of my knowledge and belief, all required information which I have not included in this CAIR Reporting Form has been submitted to EPA within the past 3 years and is current, accurate, and complete for the time period specified in the rule."

N/A

| | | |
|----------------|----------------------------|-----------------------------------------|
| _____ NAME | _____ SIGNATURE | _____ DATE SIGNED |
| _____ TITLE | () _____ TELEPHONE NO. | _____ DATE OF PREVIOUS SUBMISSION |

- 1.08 CBI Certification -- If you have asserted any CBI claims in this report you must certify that the following statements truthfully and accurately apply to all of those confidentiality claims which you have asserted.

CBI

☐

"My company has taken measures to protect the confidentiality of the information, and it will continue to take these measures; the information is not, and has not been, reasonably ascertainable by other persons (other than government bodies) by using legitimate means (other than discovery based on a showing of special need in a judicial or quasi-judicial proceeding) without my company's consent; the information is not publicly available elsewhere; and disclosure of the information would cause substantial harm to my company's competitive position."

N/A

| | | |
|----------------|----------------------------|----------------------|
| _____ NAME | _____ SIGNATURE | _____ DATE SIGNED |
| _____ TITLE | () _____ TELEPHONE NO. | |

☐ Mark (X) this box if you attach a continuation sheet.

1.09 Facility Identification

[] Address [2][0][4][][G][R][A][H][A][M][][H][O][P][E][D][A][L][E][][R][D][][][]
Street

[B][U][R][L][I][N][G][T][O][N][][][][][][][][][][][][][][][][]
City

[N]C [2]7[2][1]7--[][][][]
State Zip

EPA ID Number (RCRA)..... N.C.D. [0][0][1][9][2][4][7][4][5]

Primary Standard Industrial Classification (SIC) Code[][][][]

Other SIC Code[][][][]

Other SIC Code[][][][]

1.10 Company Headquarters Identification

[illegible]

[N][G][W][][Y][O][R][K][][][][][][][][][][][][][][][][]
City

State Zip

Employer ID Number[1][3][5][4][8][1][4][9]

☐ Mark (X) this box if you attach a continuation sheet.

CBI

Name [][][][][][][][][][][][][][][][][][][][][][][][][][][]

[] Address [][][][][][][][][][][][][][][][][][][][][][][][][][][]
Street

[][][][][][][][][][][][][][][][][][][][][][][][][][][]
City

[][][][][][][][][][][][][][][][][][][][][][][][][][][]
State Zip

Dun & Bradstreet Number[][]-[][][]-[][][][]

CBI Name [G][L][E][N][N][][C][][W][I][G][H][T][M][A][N][][][][][][][][][][][][][][][]
[][] Title [S][E][N][I][O][R][][E][N][G][I][N][E][E][R][][][][A][T][T][E][Y][][][][][][][][][][][][][][][]
Address [R][M][][B][W][B][I][T][T][E][][][][][O][N][E][][O][A][K][][W][A][Y][][][]
Street
[B][E][R][K][E][L][E][Y][][A][D][D][I][T][I][O][N][A][L][][][][][][][][][][][][][][][]
City
[N][S] [0][7][9][2][2]--[2][7][2][7]
State Zip
Telephone Number [2][0][1]-[7][7][1]-[4][6][4][9]

1.13 This reporting year is from 01 88 to 12 88
Mo. Year Mo. Year

7

1.14 Facility Acquired -- If you purchased this facility during the reporting year, provide the following information about the seller: N/A

CBI Name of Seller [][][][][][][][][][][][][][][][][][][][][][][][]

[illegible]

City

[illegible]

Employer ID Number() () () () () () ()

Date of Sale
Mo. Day Year

Contact Person [][][][][][][][][][][][][][][][][][][][][]

Telephone Number () () () - () () () - () () () ()

1.15 Facility Sold -- If you sold this facility during the reporting year, provide the following information about the buyer: *N/A*

[illegible][illegible]

City

 --
 State Zip

Employer ID Number() () () () () () () ()

Date of Purchase
Mo. Day Year

Contact Person [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] [] []

Telephone Number() () () -() () () -() () ()

☐ Mark (X) this box if you attach a continuation sheet.

1.16 For each classification listed below, state the quantity of the listed substance that was manufactured, imported, or processed at your facility during the reporting year.

CBI
Classification Quantity (kg/yr)

☐ Manufactured N/A
Imported ↓
Processed (include quantity repackaged) 22

Of that quantity manufactured or imported, report that quantity:

In storage at the beginning of the reporting year N/A
For on-site use or processing
For direct commercial distribution (including export)
In storage at the end of the reporting year

Of that quantity processed, report that quantity:

In storage at the beginning of the reporting year
Processed as a reactant (chemical producer)
Processed as a formulation component (mixture producer)
Processed as an article component (article producer) 22 *
Repackaged (including export) N/A
In storage at the end of the reporting year N/A

* ESTIMATE - PURCHASE RECORDS INCOMPLETE

☐ Mark (X) this box if you attach a continuation sheet.

PART C IDENTIFICATION OF MIXTURES

1.17 Mixture -- If the listed substance on which you are required to report is a mixture or a component of a mixture, provide the following information for each component chemical. (If the mixture composition is variable, report an average percentage of each component chemical for all formulations.)

CBI

☐

| Component Name | Supplier Name | Average % Composition by Weight (specify precision, e.g., 45% ± 0.5%) |
|---------------------------------|----------------|-----------------------------------------------------------------------|
| * Toluene-2,4-Diisocyanate | Stepan Company | 94% |
| -no other ingredients disclosed | | |
| | | |
| | | |
| | | |
| | | |

* MSDS Ingredient listing for Stepanfoam C-614-T. Total 100%

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 2 MANUFACTURER, IMPORTER, AND PROCESSOR VOLUME AND USE

2.01 State the total number of years, including the reporting year, that your facility has
CBI manufactured, imported, or processed the listed substance.

☐

Number of years manufactured yrs.

Number of years imported yrs.

Number of years processed yrs.

2.02 State the quantity of the listed substance that your facility manufactured, imported,
CBI or processed during the corporate fiscal year preceding the reporting year.

CBI

☐

Year ending ☐ ☐ ☐ ☐
Mo. Year

Quantity manufactured kg

Quantity imported kg

Quantity processed kg

2.03 State the quantity of the listed substance that your facility manufactured, imported,
CBI or processed during the 2 corporate fiscal years preceding the reporting year in
descending order.

CBI

☐

Year ending ☐ ☐ ☐ ☐
Mo. Year

Quantity manufactured kg

Quantity imported kg

Quantity processed kg

Year ending ☐ ☐ ☐ ☐
Mo. Year

Quantity manufactured kg

Quantity imported kg

Quantity processed kg

☐ Mark (X) this box if you attach a continuation sheet.

2.04 State the quantity of the listed substance that your facility manufactured, imported, or processed during the 3 corporate fiscal years preceding the reporting year in descending order.

CBI

☐ Year ending [1][2] [8][7]
Mo. Year

| | | |
|-----------------------------|-----|----|
| Quantity manufactured | N/A | kg |
| Quantity imported | N/A | kg |
| Quantity processed | 22 | kg |

Year ending [1][2] [8][7]
Mo. Year

| | | |
|-----------------------------|-----|----|
| Quantity manufactured | N/A | kg |
| Quantity imported | N/A | kg |
| Quantity processed | N/A | kg |

Year ending [1][2] [8][5]
Mo. Year

| | | |
|-----------------------------|-----|----|
| Quantity manufactured | N/A | kg |
| Quantity imported | N/A | kg |
| Quantity processed | 0 | kg |

2.05 Specify the manner in which you manufactured the listed substance. Circle all appropriate process types.

CBI

☐ Continuous process 1

Semicontinuous process 2

Batch process 3

☐ Mark (X) this box if you attach a continuation sheet.

2.06 Specify the manner in which you processed the listed substance. Circle all appropriate process types.

☐

Continuous process 1

Semicontinuous process 2

Batch process 3

2.07 State your facility's name-plate capacity for manufacturing or processing the listed substance. (If you are a batch manufacturer or batch processor, do not answer this question.)

CBI

☐

Manufacturing capacity kg/yr

Processing capacity kg/yr

2.08 If you intend to increase or decrease the quantity of the listed substance manufactured, imported, or processed at any time after your current corporate fiscal year, estimate the increase or decrease based upon the reporting year's production volume.

CBI

☐

| | Manufacturing Quantity (kg) | Importing Quantity (kg) | Processing Quantity (kg) |
|--------------------|--------------------------------|----------------------------|-----------------------------|
| Amount of increase | N/A | N/A | 0 |
| Amount of decrease | ↓ | ↓ | 0 |

☐ Mark (X) this box if you attach a continuation sheet.

2.09 For the three largest volume manufacturing or processing process types involving the listed substance, specify the number of days you manufactured or processed the listed substance during the reporting year. Also specify the average number of hours per day each process type was operated. (If only one or two operations are involved, list those.)

CBI

☐

Days/Year Average
Hours/Day

Process Type #1 (The process type involving the largest quantity of the listed substance.)

Manufactured

Processed *Putting of 2069294 Rotary Switch* 15 2

Process Type #2 (The process type involving the 2nd largest quantity of the listed substance.)

Manufactured

Processed

Process Type #3 (The process type involving the 3rd largest quantity of the listed substance.)

Manufactured

Processed

2.10 State the maximum daily inventory and average monthly inventory of the listed substance that was stored on-site during the reporting year in the form of a bulk chemical.

CBI

☐

Maximum daily inventory kg

Average monthly inventory kg

☐ Mark (X) this box if you attach a continuation sheet.

- 2.11 Related Product Types -- List any byproducts, coproducts, or impurities present with the listed substance in concentrations greater than 0.1 percent as it is manufactured, imported, or processed. The source of byproducts, coproducts, or impurities means the source from which the byproducts, coproducts, or impurities are made or introduced into the product (e.g., carryover from raw material, reaction product, etc.).

CBI

☐

NIA - PROCESSOR OF TRADENAME PRODUCT

| <u>CAS No.</u> | <u>Chemical Name</u> | <u>Byproduct, Coproduct or Impurity¹</u> | <u>Concentration (%) (specify \pm % precision)</u> | <u>Source of By-products, Coproducts, or Impurities</u> |
|----------------|----------------------|-----------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

¹Use the following codes to designate byproduct, coproduct, or impurity:

B = Byproduct
C = Coproduct
I = Impurity

☐ Mark (X) this box if you attach a continuation sheet.

- 2.12 Existing Product Types -- List all existing product types which you manufactured, imported, or processed using the listed substance during the reporting year. List the quantity of listed substance you use for each product type as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI

☐

| a. | b. | c. | d. |
|----------------------------|-------------------------------------------------------------|--------------------------------------------|--------------------------------|
| Product Types ¹ | % of Quantity Manufactured, Imported, or Processed | % of Quantity Used Captively On-Site | Type of End-Users ² |
| X | 100 | N/A | H |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

¹Use the following codes to designate product types:

| | |
|----------------------------------------------------|---------------------------------------------------------|
| A = Solvent | L = Moldable/Castable/Rubber and additives |
| B = Synthetic reactant | M = Plasticizer |
| C = Catalyst/Initiator/Accelerator/ Sensitizer | N = Dye/Pigment/Colorant/Ink and additives |
| D = Inhibitor/Stabilizer/Scavenger/ Antioxidant | O = Photographic/Reprographic chemical and additives |
| E = Analytical reagent | P = Electrodeposition/Plating chemicals |
| F = Chelator/Coagulant/Sequestrant | Q = Fuel and fuel additives |
| G = Cleanser/Detergent/Degreaser | R = Explosive chemicals and additives |
| H = Lubricant/Friction modifier/Antiwear agent | S = Fragrance/Flavor chemicals |
| I = Surfactant/Emulsifier | T = Pollution control chemicals |
| J = Flame retardant | U = Functional fluids and additives |
| K = Coating/Binder/Adhesive and additives | V = Metal alloy and additives |
| | W = Rheological modifier |
| | X = Other (specify) <u>POTTING</u> |

²Use the following codes to designate the type of end-users:

| | |
|-----------------|--------------------------------|
| I = Industrial | CS = Consumer |
| CM = Commercial | H = Other (specify) <u>DOO</u> |

☐ Mark (X) this box if you attach a continuation sheet.

- 2.13 Expected Product Types -- Identify all product types which you expect to manufacture, import, or process using the listed substance at any time after your current corporate fiscal year. For each use, specify the quantity you expect to manufacture, import, or process for each use as a percentage of the total volume of listed substance used during the reporting year. Also list the quantity of listed substance used captively on-site as a percentage of the value listed under column b., and the types of end-users for each product type. (Refer to the instructions for further explanation and an example.)

CBI

☐

| a. | b. | c. | d. |
|----------------------------|----------------------------------------------------|--------------------------------------|--------------------------------|
| Product Types ¹ | % of Quantity Manufactured, Imported, or Processed | % of Quantity Used Captively On-Site | Type of End-Users ² |
| N/A | N/A | N/A | N/A |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

¹Use the following codes to designate product types:

A = Solvent
 B = Synthetic reactant
 C = Catalyst/Initiator/Accelerator/Sensitizer
 D = Inhibitor/Stabilizer/Scavenger/Antioxidant
 E = Analytical reagent
 F = Chelator/Coagulant/Sequestrant
 G = Cleanser/Detergent/Degreaser
 H = Lubricant/Friction modifier/Antiwear agent
 I = Surfactant/Emulsifier
 J = Flame retardant
 K = Coating/Binder/Adhesive and additives

L = Moldable/Castable/Rubber and additives
 M = Plasticizer
 N = Dye/Pigment/Colorant/Ink and additives
 O = Photographic/Reprographic chemical and additives
 P = Electrodeposition/Plating chemicals
 Q = Fuel and fuel additives
 R = Explosive chemicals and additives
 S = Fragrance/Flavor chemicals
 T = Pollution control chemicals
 U = Functional fluids and additives
 V = Metal alloy and additives
 W = Rheological modifier
 X = Other (specify) _____

²Use the following codes to designate the type of end-users:

I = Industrial
 CM = Commercial

CS = Consumer
 H = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

2.14 Final Product -- Complete the following table for each type of final product manufactured, imported, or processed at your facility that contains the listed substance other than as an impurity.

☐

| a. | b. | c. | d. |
|---------------------------|--------------------------------------------|------------------------------------------------------------|--------------------------------|
| Product Type ¹ | Final Product's Physical Form ² | Average % Composition of Listed Substance in Final Product | Type of End-Users ³ |
| X | F4 | O | H |
| | | | |
| | | | |
| | | | |
| | | | |

¹Use the following codes to designate product types:

| | |
|------------------------------------------------|------------------------------------------------------|
| A = Solvent | L = Moldable/Castable/Rubber and additives |
| B = Synthetic reactant | M = Plasticizer |
| C = Catalyst/Initiator/Accelerator/Sensitizer | N = Dye/Pigment/Colorant/Ink and additives |
| D = Inhibitor/Stabilizer/Scavenger/Antioxidant | O = Photographic/Reprographic chemical and additives |
| E = Analytical reagent | P = Electrodeposition/Plating chemicals |
| F = Chelator/Coagulant/Sequestrant | Q = Fuel and fuel additives |
| G = Cleanser/Detergent/Degreaser | R = Explosive chemicals and additives |
| H = Lubricant/Friction modifier/Antiwear agent | S = Fragrance/Flavor chemicals |
| I = Surfactant/Emulsifier | T = Pollution control chemicals |
| J = Flame retardant | U = Functional fluids and additives |
| K = Coating/Binder/Adhesive and additives | V = Metal alloy and additives |
| | W = Rheological modifier |
| | X = Other (specify) <u>POTTING</u> |

²Use the following codes to designate the final product's physical form:

| | |
|----------------------|---------------------------|
| A = Gas | F2 = Crystalline solid |
| B = Liquid | F3 = Granules |
| C = Aqueous solution | F4 = Other solid |
| D = Paste | G = Gel |
| E = Slurry | H = Other (specify) _____ |
| F1 = Powder | |

³Use the following codes to designate the type of end-users:

| | |
|-----------------|---------------------------|
| I = Industrial | CS = Consumer |
| CM = Commercial | H = Other (specify) _____ |

☐ Mark (X) this box if you attach a continuation sheet.

2.15 Circle all applicable modes of transportation used to deliver bulk shipments of the listed substance to off-site customers.

- ☐ N/A - PROCESSOR ; NO BULK SHIPMENTS.
- ☐ Truck 1
- Railcar 2
- Barge, Vessel 3
- Pipeline 4
- Plane 5
- Other (specify) 6

2.16 Customer Use -- Estimate the quantity of the listed substance used by your customers or prepared by your customers during the reporting year for use under each category of end use listed (i-iv).

☐ N/A - ARTICLE PROCESSOR.

Category of End Use

i. Industrial Products

Chemical or mixture kg/yr

Article kg/yr

ii. Commercial Products

Chemical or mixture kg/yr

Article kg/yr

iii. Consumer Products

Chemical or mixture kg/yr

Article kg/yr

iv. Other

Distribution (excluding export) kg/yr

Export kg/yr

Quantity of substance consumed as reactant kg/yr

Unknown customer uses kg/yr

☐ Mark (X) this box if you attach a continuation sheet.

2.1/ State the quantity of the listed substance that you exported during the reporting
CBI year.

N/A

☐

In bulk kg/yr
As a mixture kg/yr
in articles kg/yr

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 3 PROCESSOR RAW MATERIAL IDENTIFICATION

PART A GENERAL DATA

- 3.01 Specify the quantity purchased and the average price paid for the listed substance for each major source of supply listed. Product trades are treated as purchases.
CBI The average price is the market value of the product that was traded for the listed substance.

☐

| <u>Source of Supply</u> | <u>Quantity (kg)</u> | <u>Average Price (\$/kg)</u> |
|---------------------------------------------------------------------------------|--------------------------|----------------------------------|
| The listed substance was manufactured on-site. | 0 | - |
| The listed substance was transferred from a different company site. | 0 | - |
| The listed substance was purchased directly from a manufacturer or importer. | 0 | - |
| The listed substance was purchased from a distributor or repackager. | 0 | - |
| The listed substance was purchased from a mixture producer. (data for mixture). | 22 | \$0.59 |

- 3.02 Circle all applicable modes of transportation used to deliver the listed substance to your facility.

☐

- Truck ①
 Railcar 2
 Barge, Vessel 3
 Pipeline 4
 Plane ⑤
 Other (specify) _____ 6

☐ Mark (X) this box if you attach a continuation sheet.

3.03 a. Circle all applicable containers used to transport the listed substance to your
CBI facility.

☐

Bags 1
Boxes (2)
Free standing tank cylinders 3
Tank rail cars 4
Hopper cars 5
Tank trucks 6
Hopper trucks 7
Drums 8
Pipeline 9
Other (specify) CAN (10)

b. If the listed substance is transported in pressurized tank cylinders, tank rail cars, or tank trucks, state the pressure of the tanks. N/A

Tank cylinders mmHg
Tank rail cars mmHg
Tank trucks mmHg

☐ Mark (X) this box if you attach a continuation sheet.

PART B RAW MATERIAL IN THE FORM OF A MIXTURE

- 3.04 If you obtain the listed substance in the form of a mixture, list the trade name(s) of the mixture, the name of its supplier(s) or manufacturer(s), an estimate of the average percent composition by weight of the listed substance in the mixture, and the amount of mixture processed during the reporting year.

CBI



| <u>Trade Name</u> | <u>Supplier or Manufacturer</u> | <u>Average % Composition by Weight (specify \pm % precision)</u> | <u>Amount Processed (kg/yr)</u> |
|--------------------|-------------------------------------|-------------------------------------------------------------------------------------------|-----------------------------------------|
| STEPANFOAM C-614-T | STEPANFOAM | 94* | 20.7 |
| | | | |
| | | | |
| | | | |

* PRECISION UNKNOWN.

☐ Mark (X) this box if you attach a continuation sheet.

PART C RAW MATERIAL VOLUME

3.05 State the quantity of the listed substance used as a raw material during the reporting year in the form of a class I chemical, class II chemical, or polymer, and the percent composition, by weight, of the listed substance.



MTA- PROCESSOR.

| | Quantity Used (kg/yr) | % Composition by Weight of Listed Sub- stance in Raw Material (specify \pm % precision) |
|---------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------|
| Class I chemical | 20.7 | 94* |
| - Tradename mixture containing Class I listed substance | | |
| Class II chemical | | |
| | | |
| | | |
| Polymer | | |
| | | |
| | | |

* precision unknown

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 4 PHYSICAL/CHEMICAL PROPERTIES

General Instructions:

If you are reporting on a mixture as defined in the glossary, reply to questions in Section 4 that are inappropriate to mixtures by stating "NA -- mixture."

For questions 4.06-4.15, if you possess any hazard warning statement, label, MSDS, or other notice that addresses the information requested, you may submit a copy or reasonable facsimile in lieu of answering those questions which it addresses.

PART A PHYSICAL/CHEMICAL DATA SUMMARY

- 4.01 Specify the percent purity for the three major¹ technical grade(s) of the listed substance as it is manufactured, imported, or processed. Measure the purity of the substance in the final product form for manufacturing activities, at the time you import the substance, or at the point you begin to process the substance.

CBI

☐ NA - MIXTURE

| | <u>Manufacture</u> | <u>Import</u> | <u>Process</u> |
|--------------------|--------------------|----------------|----------------|
| Technical grade #1 | _____ % purity | _____ % purity | _____ % purity |
| Technical grade #2 | _____ % purity | _____ % purity | _____ % purity |
| Technical grade #3 | _____ % purity | _____ % purity | _____ % purity |

¹Major = Greatest quantity of listed substance manufactured, imported or processed.

- 4.02 Submit your most recently updated Material Safety Data Sheet (MSDS) for the listed substance, and for every formulation containing the listed substance. If you possess an MSDS that you developed and an MSDS developed by a different source, submit your version. Indicate whether at least one MSDS has been submitted by circling the appropriate response.

Yes (1)

No 2

Indicate whether the MSDS was developed by your company or by a different source.

Your company 1

Another source (2)

☒ Mark (X) this box if you attach a continuation sheet.

4.03 Submit a copy or reasonable facsimile of any hazard information (other than an MSDS) that is provided to your customers/users regarding the listed substance or any formulation containing the listed substance. Indicate whether this information has been submitted by circling the appropriate response.

Yes 1
 No (2)

4.04 For each activity that uses the listed substance, circle all the applicable number(s) corresponding to each physical state of the listed substance during the activity listed. Physical states for importing and processing activities are determined at the time you import or begin to process the listed substance. Physical states for manufacturing, storage, disposal and transport activities are determined using the final state of the product.

CBI
☐

| Activity | Physical State | | | | |
|-------------|----------------|--------|--------|---------------|-----|
| | Solid | Slurry | Liquid | Liquified Gas | Gas |
| Manufacture | 1 | 2 | 3 | 4 | 5 |
| Import | 1 | 2 | 3 | 4 | 5 |
| Process | (1) | 2 | (3) | 4 | 5 |
| Store | 1 | 2 | 3 | 4 | 5 |
| Dispose | 1 | 2 | 3 | 4 | 5 |
| Transport | 1 | 2 | 3 | 4 | 5 |

☐ Mark (X) this box if you attach a continuation sheet.

- 4.05 Particle Size -- If the listed substance exists in particulate form during any of the following activities, indicate for each applicable physical state the size and the percentage distribution of the listed substance by activity. Do not include particles ≥ 10 microns in diameter. Measure the physical state and particle sizes for importing and processing activities at the time you import or begin to process the listed substance. Measure the physical state and particle sizes for manufacturing storage, disposal and transport activities using the final state of the product.

CBI



NIA - PROCESSOR

Physical
State

Manufacture Import Process Store Dispose Transport

Dust <1 micron

1 to <5 microns

5 to <10 microns

Powder <1 micron

1 to <5 microns

5 to <10 microns

Fiber <1 micron

1 to <5 microns

5 to <10 microns

Aerosol <1 micron

1 to <5 microns

5 to <10 microns



Mark (X) this box if you attach a continuation sheet.

PART B FIRE, EXPLOSION, AND OTHER HAZARD DATA

4.06 For each physical state of the listed substance, specify the corresponding flashpoint, and the test method used to derive the flashpoint value.

Solid

Flashpoint °C

Test method _____

Liquid

Flashpoint °C

Test method _____

Gas/Vapor

Flashpoint °C

Test method _____

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

4.07 Indicate the temperature at which the listed substance undergoes autopolymerization or autodecomposition.

Autopolymerizes at °C

Autodecomposes at °C

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

☐ Mark (X) this box if you attach a continuation sheet.

4.08 Indicate the flammable limits in air (% by volume) for the listed substance at standard temperature and pressure.

Lower limit %
Upper limit %

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1
No 2

☐ Mark (X) this box if you attach a continuation sheet.

4.09 Extinguishing Media -- Identify (Y/N/NA/UK) all known methods for extinguishing flames caused by each product type which contains the listed substance. (Refer to the instructions for the definition of Y, N, NA and UK.)

| <u>Extinguishing Media</u> | <u>Product Types Containing the Listed Substance¹</u> | | | | | |
|----------------------------------------------------------------------|------------------------------------------------------------------|----------|----------|----------|----------|----------|
| | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> |
| Water | _____ | _____ | _____ | _____ | _____ | _____ |
| Foam | _____ | _____ | _____ | _____ | _____ | _____ |
| CO ₂ | _____ | _____ | _____ | _____ | _____ | _____ |
| Dry chemical (e.g., sodium bicarbonate) | _____ | _____ | _____ | _____ | _____ | _____ |
| Halogenated hydrocarbon (e.g., carbon tetrachloride, methyl bromide) | _____ | _____ | _____ | _____ | _____ | _____ |
| Other (specify) _____ | _____ | _____ | _____ | _____ | _____ | _____ |

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1
 No 2

¹Identify the product types listed under each column (1-6) in the following table:

| <u>Product Type No.</u> | <u>Product Type Identity</u> |
|-------------------------|------------------------------|
| 1 | _____ |
| 2 | _____ |
| 3 | _____ |
| 4 | _____ |
| 5 | _____ |
| 6 | _____ |

☐ Mark (X) this box if you attach a continuation sheet.

- 4.10 Special Firefighting Procedures -- Identify (Y/N/NA/UK) all known restrictions on firefighting procedures used to combat fires caused by each product type which contains the listed substance. (Refer to the instructions for definitions of Y, N, NA and UK.)

| <u>Special Firefighting Procedures</u> | <u>Product Types Containing the Listed Substance¹</u> | | | | | |
|----------------------------------------|------------------------------------------------------------------|----------|----------|----------|----------|----------|
| | <u>1</u> | <u>2</u> | <u>3</u> | <u>4</u> | <u>5</u> | <u>6</u> |
| Do not use water | _____ | _____ | _____ | _____ | _____ | _____ |
| Do not increase air pressure | _____ | _____ | _____ | _____ | _____ | _____ |
| Other (specify) _____ | _____ | _____ | _____ | _____ | _____ | _____ |

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Identify the product types listed under each column (1-6) in the following table:

| <u>Product Type No.</u> | <u>Product Type Identity</u> |
|-------------------------|------------------------------|
| 1 | _____ |
| 2 | _____ |
| 3 | _____ |
| 4 | _____ |
| 5 | _____ |
| 6 | _____ |

☐ Mark (X) this box if you attach a continuation sheet.

- 4.11 Incompatibility -- List all chemicals, materials, or categories of chemicals or materials that you know are incompatible with the listed substance and the reason why they are incompatible. (Refer to the instructions for further explanation and an example.)

| <u>CAS No.</u> | <u>Name</u> | <u>Reaction (specify)</u> |
|----------------|-------------|---------------------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1
No 2

- 4.12 Autoxidation -- Is the listed substance capable of autoxidation? Circle the appropriate response.

Yes 1
No 2
Unknown 3

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1
No 2

☐ Mark (X) this box if you attach a continuation sheet.

- 4.13 Indicate the autoignition temperature for the listed substance and the test method used to derive this value.

Autoignition temperature °C

Test method

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

- 4.14 Vapor in Cargo Tanks -- If storing the listed substance in a cargo tank causes vapor problems, such as peroxide formation, reaction with moisture, etc., specify the problem and necessary controls or restrictions used to remedy each problem.

Vapor Problem

Controls/Restrictions

Peroxide formation

Reaction with moisture

Combustion

Other (specify)

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

☐ Mark (X) this box if you attach a continuation sheet.

- 4.15 Shipment Procedures -- If you use an inhibitor or stabilizer when shipping the listed substance in bulk form, specify its name, whether it inhibits or stabilizes the listed substance, the amount normally added, and the duration of its effectiveness.

CBI

☐

| <u>Name of Additive</u> | <u>Inhibitor or Stabilizer¹</u> | <u>Amount Normally Added (ppm or %)</u> | <u>Duration of Effectiveness (specify units)</u> |
|-------------------------|----------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

Indicate if hazard information/MSDS has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate inhibitor and stabilizer:

I = Inhibitor

S = Stabilizer

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 5 ENVIRONMENTAL FATE

PART A RATE CONSTANTS AND TRANSFORMATION PRODUCTS

5.01 Indicate the rate constants for the following transformation processes.

- NIA - PROCESSOR
- a. Photolysis: INFORMATION NOT AVAILABLE
- Absorption spectrum coefficient (peak) (1/M cm) at _____ nm
- Reaction quantum yield, ϕ at _____ nm
- Direct photolysis rate constant, k_p , at ... 1/hr _____ latitude
- b. Oxidation constants at 25°C: INFORMATION NOT AVAILABLE
- For 1O_2 (singlet oxygen), k_{ox} 1/M hr
- For RO_2 (peroxy radical), k_{ox} 1/M hr
- c. Five-day biochemical oxygen demand, BOD_5 ^{Info. N/A} Available mg/l
- d. Biotransformation rate constant: INFORMATION NOT AVAILABLE
- For bacterial transformation in water, k_b ... 1/hr
- Specify culture
- e. Hydrolysis rate constants: INFORMATION NOT AVAILABLE
- For base-promoted process, k_b 1/M hr
- For acid-promoted process, k_a 1/M hr
- For neutral process, k_n 1/hr
- f. Chemical reduction rate (specify conditions) INFORMATION NOT AVAILABLE
- AVAILABLE
- g. Other (such as spontaneous degradation) ... INFORMATION NOT AVAILABLE

☐ Mark (X) this box if you attach a continuation sheet.

PART B PARTITION COEFFICIENTS

5.02 a. Specify the half-life of the listed substance in the following media.

INFORMATION NOT AVAILABLE

| <u>Media</u> | <u>Half-life (specify units)</u> |
|---------------|----------------------------------|
| Groundwater | _____ |
| Atmosphere | _____ |
| Surface water | _____ |
| Soil | _____ |

b. Identify the listed substance's known transformation products that have a half-life greater than 24 hours.

INFORMATION NOT AVAILABLE

| <u>CAS No.</u> | <u>Name</u> | <u>Half-life (specify units)</u> | <u>Media</u> |
|----------------|-------------|----------------------------------|--------------|
| _____ | _____ | _____ | in _____ |
| _____ | _____ | _____ | in _____ |
| _____ | _____ | _____ | in _____ |
| _____ | _____ | _____ | in _____ |

5.03 Specify the octanol-water partition coefficient, K_{ow} ... _____ at 25°C

Method of calculation or determination _____

INFORMATION NOT AVAILABLE

5.04 Specify the soil-water partition coefficient, K_d _____ at 25°C

Soil type _____

INFORMATION NOT AVAILABLE

5.05 Specify the organic carbon-water partition coefficient, K_{oc} _____ at 25°C

INFORMATION NOT AVAILABLE

5.06 Specify the Henry's Law Constant, H atm-m³/mole

INFORMATION NOT AVAILABLE

☐ Mark (X) this box if you attach a continuation sheet.

5.07 List the bioconcentration factor (BCF) of the listed substance, the species for which it was determined, and the type of test used in deriving the BCF.

INFORMATION NOT AVAILABLE

Bioconcentration Factor

Species

Test¹

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

¹Use the following codes to designate the type of test:

F - Flowthrough

S - Static

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 6 ECONOMIC AND FINANCIAL INFORMATION

6.01 Company Type -- Circle the number which most appropriately describes your company.

CBI

- ☐ Corporation 1
- ☐ Sole proprietorship 2
- Partnership 3
- Other (specify) _____ 4

6.02 At the end of the reporting year, were you constructing additional facilities at this site that were not yet in operation at the end of the reporting year, but which are now being used or will be used in the future for manufacturing, importing, or processing the listed substance? Circle the appropriate response.

CBI

- ☐ Yes 1
- No 2

6.03 List all of the product types that you manufacture that contain the listed substance as a raw material, and the percentage of the name-plate capacity dedicated to the listed substance that each product type represents. The total of all capacity percentiles should equal 100 percent. State the total name-plate capacity of the process type(s) used to manufacture all product types that contain the listed substance.

CBI

☐

| Product Type | % Total Capacity |
|--------------|---------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

State the total name-plate capacity of the process type(s) used to manufacture all product types that contain the listed substance: _____ kg/yr

☐ Mark (X) this box if you attach a continuation sheet.

6.04 For each market listed below, state the quantity sold and the total sales value of
CBI the listed substance sold or transferred in bulk during the reporting year.

☐

| <u>Market</u> | <u>Quantity Sold or Transferred (kg/yr)</u> | <u>Total Sales Value (\$/yr)</u> |
|-----------------------------------------------|-------------------------------------------------|--------------------------------------|
| Retail sales | _____ | _____ |
| Distribution -- Wholesalers | _____ | _____ |
| Distribution -- Retailers | _____ | _____ |
| Intra-company transfer | _____ | _____ |
| Repackagers | _____ | _____ |
| Mixture producers | _____ | _____ |
| Article producers | _____ | _____ |
| Other chemical manufacturers or processors | _____ | _____ |
| Exporters | _____ | _____ |
| Other (specify) | _____ | _____ |
| _____ | _____ | _____ |

6.05 Substitutes -- List all known commercially feasible substitutes that you know exist
for the listed substance and state the cost of each substitute. A commercially
feasible substitute is one which is economically and technologically feasible to use
CBI in your current operation, and which results in a final product with comparable
performance in its end uses.

☐

SUBSTITUTES UNKNOWN

Substitute

Cost (\$/kg)

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

☐ Mark (X) this box if you attach a continuation sheet.

6.06 State your average total and variable costs of manufacturing, importing, and processing the listed substance during the reporting year. (For an explanation of these costs, refer to the instructions.)

CBI

☐

Average Total Costs

Manufacturing \$/kg

Importing \$/kg

Processing \$/kg

Average Variable Costs

Manufacturing \$/kg

Importing \$/kg

Processing \$/kg

6.07 State your average purchase price of the listed substance, if purchased as a raw material during the reporting year.

CBI

☐ Average purchase price \$/kg

6.08 State your company's total sales and sales of the listed substance sold in bulk for the reporting year.

CBI

☐

Year ending
Mo. Year

Company's total sales (\$)

Sales of listed substance (\$)

☐ Mark (X) this box if you attach a continuation sheet.

6.09 State your company's total sales and sales of the listed substance sold in bulk for the corporate fiscal year preceding the reporting year. (Refer to the instructions for question 6.08 for the methodology used to answer this question.)

CBI
☐

Year ending
Mo. Year

Company's total sales (\$)

Sales of listed substance (\$)

6.10 State your company's total sales and sales of the listed substance sold in bulk for the 2 corporate fiscal years preceding the reporting year in descending order. (Refer to the instructions for question 6.08 for the methodology used to answer this question.)

CBI
☐

Year ending
Mo. Year

Company's total sales (\$)

Sales of listed substance (\$)

Year ending
Mo. Year

Company's total sales (\$)

Sales of listed substance (\$)

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 7 MANUFACTURING AND PROCESSING INFORMATION

General Instructions:

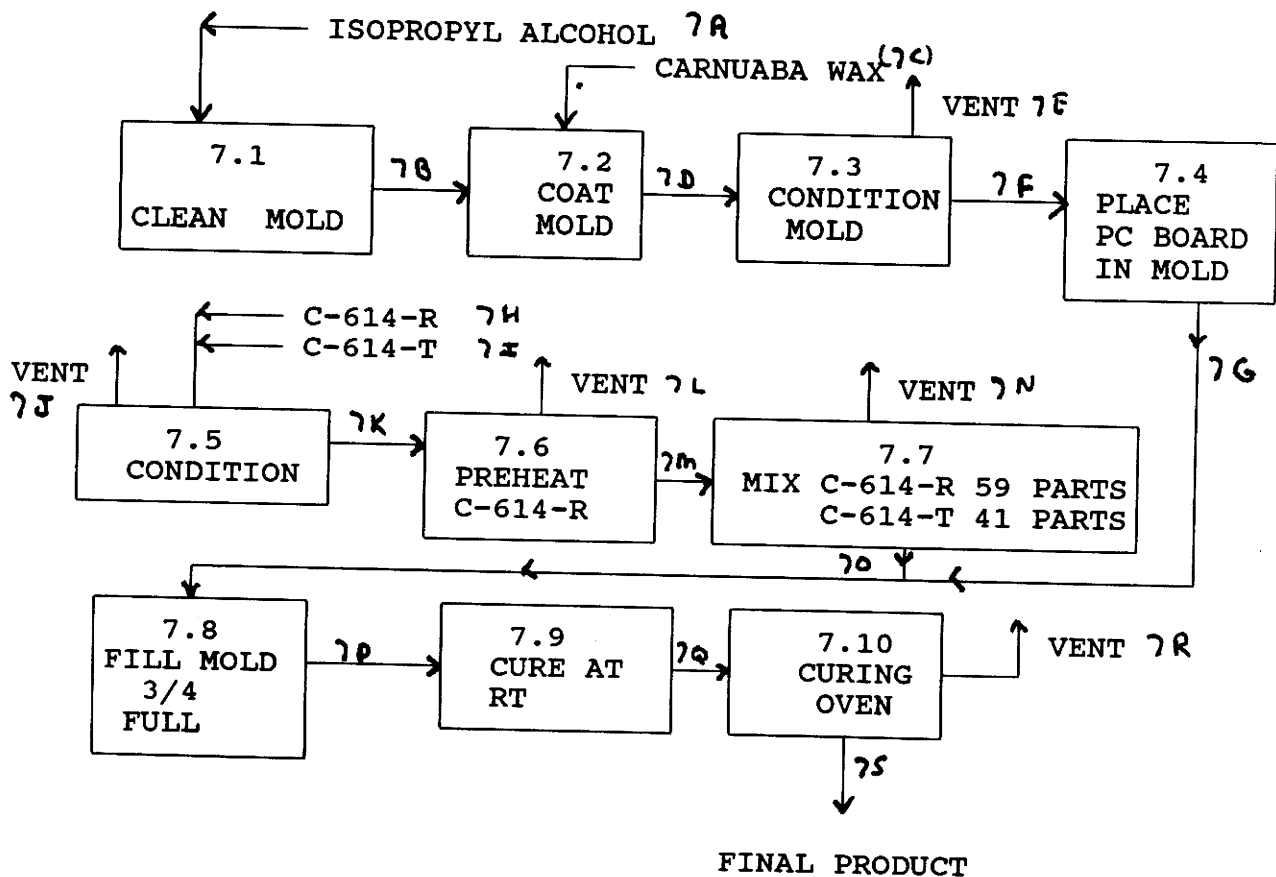
For questions 7.04-7.06, provide a separate response for each process block flow diagram provided in questions 7.01, 7.02, and 7.03. Identify the process type from which the information is extracted.

PART A MANUFACTURING AND PROCESSING PROCESS TYPE DESCRIPTION

7.01 In accordance with the instructions, provide a process block flow diagram showing the major (greatest volume) process type involving the listed substance.

CBI

☐ Process type POTTING OF 2069694
ROTARY SWITCH



☐ Mark (X) this box if you attach a continuation sheet.

7.02 In accordance with the instructions, provide a separate process block flow diagram showing each of the three major (greatest volume) process types involving the listed substance.

CBI

N/A

☐

Process type

☐

Mark (X) this box if you attach a continuation sheet.

7.03 In accordance with the instructions, provide a process block flow diagram showing all process emission streams and emission points that contain the listed substance and which, if combined, would total at least 90 percent of all facility emissions if not treated before emission into the environment. If all such emissions are released from one process type, provide a process block flow diagram using the instructions for question 7.01. If all such emissions are released from more than one process type, provide a process block flow diagram showing each process type as a separate block.

CBI

☐ Process type see emission detail at 7.01, p.42
Process emissions < 90 percent of facility emissions.

☐ Mark (X) this box if you attach a continuation sheet.

7.04 Describe the typical equipment types for each unit operation identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type Potting of 2069694 Rotary Switch

| Unit Operation ID Number | Typical Equipment Type | Operating Temperature Range (°C) | Operating Pressure Range (mm Hg) | Vessel Composition |
|-----------------------------------|------------------------------|----------------------------------------|-------------------------------------------|-----------------------|
| <u>7.3</u> | <u>OVEN</u> | <u>38 - 43</u> | <u>AMBIENT</u> | <u>METAL</u> |
| <u>7.5</u> | <u>OVEN</u> | <u>38 - 43</u> | <u>"</u> | <u>"</u> |
| <u>7.6</u> | <u>OVEN</u> | <u>24</u> | <u>"</u> | <u>"</u> |
| <u>7.10</u> | <u>OVEN</u> | <u>82</u> | <u>"</u> | <u>"</u> |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

☐ Mark (X) this box if you attach a continuation sheet.

7.05 Describe each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type Potting of 2069694 Rotary Switch

| Process Stream ID Code | Process Stream Description | Physical State ¹ | Stream Flow (kg/yr) |
|------------------------|----------------------------|-----------------------------|---------------------|
| <u>7A</u> | <u>ISOPROPYL ALCOHOL</u> | <u>GC</u> | <u>UNKNOWN</u> |
| <u>7C</u> | <u>CARNUBA WAX</u> | <u>SO</u> | <u>UNKNOWN</u> |
| <u>7E</u> | <u>ISOPROPYL ALCOHOL</u> | <u>GC</u> | <u>UNKNOWN</u> |
| <u>7H</u> | <u>C-614-R</u> | <u>OL</u> | <u>22</u> |
| <u>7I</u> | <u>C-614-T</u> | <u>OL</u> | <u>22</u> |
| <u>7L</u> | <u>C-614-R</u> | <u>GC</u> | <u>UNKNOWN</u> |
| <u>7N</u> | <u>TDI</u> | <u>GC</u> | <u>UNKNOWN</u> |
| <u>7R</u> | <u>TDI</u> | <u>GC</u> | <u>UNKNOWN</u> |
| <u>7S</u> | <u>CURED POLYURETHANE</u> | <u>SO</u> | <u>UNKNOWN</u> |
| <u>7T</u> | <u>TDI / POLYOL</u> | <u>GC</u> | <u>UNKNOWN</u> |

¹ Use the following codes to designate the physical state for each process stream:

- GC = Gas (condensable at ambient temperature and pressure)
- GU = Gas (uncondensable at ambient temperature and pressure)
- SO = Solid
- SY = Sludge or slurry
- AL = Aqueous liquid
- OL = Organic liquid
- IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

☐ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Potting of 2069694 Rotary Switch

| a. | b. | c. | d. | e. |
|------------------------|------------------------------|------------------------------------------|--------------------------|-------------------------------------|
| Process Stream ID Code | Known Compounds ¹ | Concentrations ^{2,3} (% or ppm) | Other Expected Compounds | Estimated Concentrations (% or ppm) |
| 7A | ISOPROPYL ALCOHOL | 100% | N/A | N/A |
| | N/A | N/A | ↓ | ↓ |
| | ↓ | ↓ | ↓ | ↓ |
| 7C | CARNAUBA WAX | 100% | N/A | N/A |
| | N/A | N/A | ↓ | ↓ |
| | ↓ | ↓ | ↓ | ↓ |
| 7E | ISOPROPYL ALCOHOL | Not Determined | N/A | N/A |
| | N/A | N/A | ↓ | ↓ |
| | ↓ | ↓ | ↓ | ↓ |

7.06 continued below

NOTE: The intermediate process streams identified at 701 are solely mixtures of the input to the preceding process. These streams are not detailed here since no input emissions, or discharges are included.

☒ Mark (X) this box if you attach a continuation sheet.

7.06 (continued)

¹For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column b. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

| Additive Package Number | Components of Additive Package | Concentrations (% or ppm) |
|----------------------------|-----------------------------------|------------------------------|
| <u>1</u> | N/A* | |
| | | |
| | | |
| <u>2</u> | | |
| | | |
| | | |
| <u>3</u> | | |
| | | |
| | | |
| <u>4</u> | | |
| | | |
| | | |
| <u>5</u> | | |
| | | |
| | | |
| | | |

²Use the following codes to designate how the concentration was determined:

A = Analytical result
E = Engineering judgement/calculation

³Use the following codes to designate how the concentration was measured:

V = Volume
W = Weight

* Applies to all process streams

☐ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Potting of 2069694 Rotary Switch

| a. | b. | c. | d. | e. |
|------------------------|------------------------------|------------------------------------------|--------------------------|-------------------------------------|
| Process Stream ID Code | Known Compounds ¹ | Concentrations ^{2,3} (% or ppm) | Other Expected Compounds | Estimated Concentrations (% or ppm) |
| 7H | POLYOL | 100% | N/A | N/A |
| | N/A | N/A | | |
| | ↓ | ↓ | ↓ | ↓ |
| 7I | TDI | 94% | N/A | N/A |
| | N/A | N/A | | |
| | ↓ | ↓ | ↓ | ↓ |
| 7L | UNKNOWN | N/A | N/A | N/A |
| | N/A | | | |
| | ↓ | ↓ | ↓ | ↓ |

7.06 continued below

☒ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type Putting of 2069694 Rotary Switch

| a. | b. | c. | d. | e. |
|------------------------|------------------------------|------------------------------------------|--------------------------|-------------------------------------|
| Process Stream ID Code | Known Compounds ¹ | Concentrations ^{2,3} (% or ppm) | Other Expected Compounds | Estimated Concentrations (% or ppm) |
| <u>7N</u> | <u>TDI</u> | <u>Not Determined</u> | <u>N/A</u> | <u>N/A</u> |
| | <u>N/A</u> | <u>N/A</u> | | |
| | | | | |
| | | | | |
| <u>7A</u> | <u>TDI</u> | <u>Not Determined</u> | <u>N/A</u> | <u>N/A</u> |
| | <u>N/A</u> | <u>N/A</u> | | |
| | | | | |
| | | | | |
| <u>7S</u> | <u>ARTICLE</u> | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> |
| | <u>N/A</u> | | | |
| | | | | |
| | | | | |

7.06 continued below

☒ Mark (X) this box if you attach a continuation sheet.

7.06 Characterize each process stream identified in your process block flow diagram(s). If a process block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the CBI instructions for further explanation and an example.)

☐ Process type

| a. | b. | c. | d. | e. |
|------------------------|------------------------------|------------------------------------------|--------------------------|-------------------------------------|
| Process Stream ID Code | Known Compounds ¹ | Concentrations ^{2,3} (% or ppm) | Other Expected Compounds | Estimated Concentrations (% or ppm) |
| 75 | TDI | Non-determined | N/A | N/A |
| | Polyol | Not determined | | |
| | N/A | N/A | | |
| | ↓ | ↓ | ↓ | ↓ |
| | | | | |
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| | | | | |
| | | | | |

7.06 continued below

☐ Mark (X) this box if you attach a continuation sheet.

7.06 (continued)

N/A

¹For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column b. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

| Additive Package Number | Components of Additive Package | Concentrations (% or ppm) |
|----------------------------|-----------------------------------|------------------------------|
| <u>1</u> | | |
| | | |
| | | |
| <u>2</u> | | |
| | | |
| | | |
| <u>3</u> | | |
| | | |
| | | |
| <u>4</u> | | |
| | | |
| | | |
| <u>5</u> | | |
| | | |
| | | |
| | | |

²Use the following codes to designate how the concentration was determined:

A = Analytical result

E = Engineering judgement/calculation

³Use the following codes to designate how the concentration was measured:

V = Volume

W = Weight

☐ Mark (X) this box if you attach a continuation sheet.

**SECTION 8 RESIDUAL TREATMENT GENERATION, CHARACTERIZATION, TRANSPORTATION, AND
MANAGEMENT**

General Instructions:

For questions 8.04-8.06, provide a separate response for each residual treatment block flow diagram provided in question 8.01, 8.02 or 8.03. Identify the process type from which the information is extracted.

For questions 8.05-8.33, the Stream Identification Codes are those process streams listed in either the Section 7 or Section 8 block flow diagrams which contain residuals for each applicable waste management method.

For questions 8.07-8.33, if residuals are combined before they are handled, list those Stream Identification Codes on the same line.

Questions 8.09-8.33 refer to the waste management activities involving the residuals identified in either the Section 7 or Section 8 block flow diagrams. Not all Stream Identification Codes used in the sample answers (e.g., for the incinerator questions) have corresponding process streams identified in the block flow diagram(s). These Stream Identification codes are for illustrative purposes only.

For questions 8.11-8.33, if you have provided the information requested on one of the EPA Office of Solid Waste surveys listed below within the three years prior to your reporting year, you may submit a copy or reasonable facsimile in lieu of answering those questions which the survey addresses. The applicable surveys are: (1) Hazardous Waste Treatment, Storage, Disposal, and Recycling Survey; (2) Hazardous Waste Generator Survey; or (3) Subtitle D Industrial Facility Mail Survey.

☐ Mark (X) this box if you attach a continuation sheet.

PART A RESIDUAL TREATMENT PROCESS DESCRIPTION

8.01 In accordance with the instructions, provide a residual treatment block flow diagram which describes the treatment process used for residuals identified in question 7.01.

CBI N/A No RESIDUAL TREATMENT PROCESS.

☐ Process type

☐ Mark (X) this box if you attach a continuation sheet.

8.02 In accordance with the instructions, provide residual treatment block flow diagram(s) which describe each of the treatment processes used for residuals identified in question 7.02.

CBI

☐ Process type

☐ Mark (X) this box if you attach a continuation sheet.

8.03 In accordance with the instructions, provide residual treatment block flow diagram(s) which describe each of the treatment processes used for residuals identified in question 7.03.

CBI

☐ Process type

☐ Mark (X) this box if you attach a continuation sheet.

8.04 Describe the typical equipment types for each unit operation identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type.

CBI

☐ Process type

Unit Operation ID Number
(as assigned in questions
8.01, 8.02, or 8.03)

Typical Equipment Type

☐ Mark (X) this box if you attach a continuation sheet.

PART B RESIDUAL GENERATION AND CHARACTERIZATION

8.05 Characterize each process stream identified in your residual treatment block flow diagram(s). If a residual treatment block flow diagram is provided for more than one process type, photocopy this question and complete it separately for each process type. (Refer to the instructions for further explanation and an example.)

CBI

[] Process type ^{N/A}

N/A - No Residual Treatment Processes

[illegible]

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

¹Use the following codes to designate the type of hazardous waste:

I = Ignitable
C = Corrosive
R = Reactive
E = EP toxic
T = Toxic
H = Acutely hazardous

²Use the following codes to designate the physical state of the residual:

GC = Gas (condensable at ambient temperature and pressure)
GU = Gas (uncondensable at ambient temperature and pressure)
SO = Solid
SY = Sludge or slurry
AL = Aqueous liquid
OL = Organic liquid
IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

³For each additive package introduced into a process stream, specify the compounds that are present in each additive package, and the concentration of each component. Assign an additive package number to each additive package and list this number in column d. (Refer to the instructions for further explanation and an example. Refer to the glossary for the definition of additive package.)

| Additive Package Number | Components of Additive Package | Concentrations (% or ppm) |
|----------------------------|-----------------------------------|------------------------------|
| <u>1</u> | | |
| | | |
| | | |
| <u>2</u> | | |
| | | |
| | | |
| <u>3</u> | | |
| | | |
| | | |
| <u>4</u> | | |
| | | |
| | | |
| <u>5</u> | | |
| | | |
| | | |
| | | |

⁴Use the following codes to designate how the concentration was determined:

A = Analytical result
E = Engineering judgement/calculation

8.05 continued below

☐ Mark (X) this box if you attach a continuation sheet.

8.05 (continued)

⁵Use the following codes to designate how the concentration was measured:

V = Volume

W = Weight

⁶Specify the analytical test methods used and their detection limits in the table below. Assign a code to each test method used and list those codes in column e.

| <u>Code</u> | <u>Method</u> | <u>Detection Limit</u> <u>(± ug/l)</u> |
|-------------|---------------|-------------------------------------------|
| <u>1</u> | <hr/> | <hr/> |
| <u>2</u> | <hr/> | <hr/> |
| <u>3</u> | <hr/> | <hr/> |
| <u>4</u> | <hr/> | <hr/> |
| <u>5</u> | <hr/> | <hr/> |
| <u>6</u> | <hr/> | <hr/> |

☐ Mark (X) this box if you attach a continuation sheet.

N/A - No Residual Treatment Processes

☐ Process type

¹Use the codes provided in Exhibit 8-1 to designate the waste descriptions

²Use the codes provided in Exhibit 8-2 to designate the management methods

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EXHIBIT 8-1.
(Refers to question 8.06(b))

WASTE DESCRIPTION CODES

These waste description codes were developed specifically for this survey to supplement the descriptions listed with the RCRA and other waste codes. (These waste description codes are not regulatory definitions.)

WASTE DESCRIPTION CODES FOR HAZARDOUS WASTE DESCRIBED BY A SINGLE RCRA F, K, P OR U WASTE CODE

| | | |
|--------------------------------------------|------------------------------------------------|-----------------------------------------------------------|
| A01 Spent solvent (F001-F005, K086) | A06 Contaminated soil or cleanup residue | A10 Incinerator ash |
| A02 Other organic liquid (F001-F005, K086) | A07 Other F or K waste, exactly as described | A11 Solidified treatment residue |
| A03 Still bottom (F001-F005, K086) | A08 Concentrated off-spec or discarded product | A12 Other treatment residue (specify in "Facility Notes") |
| A04 Other organic sludge (F001-F005, K086) | A09 Empty containers | A13 Other untreated waste (specify in "Facility Notes") |
| A05 Wastewater or aqueous mixture | | |

"Exactly as described" means that the waste matches the description of the RCRA waste code.

INORGANIC LIQUIDS—Waste that is primarily inorganic and highly fluid (e.g. aqueous), with low suspended inorganic solids and low organic content.

- B01 Aqueous waste with low solvents
- B02 Aqueous waste with low other toxic organics
- B03 Spent acid with metals
- B04 Spent acid without metals
- B05 Acidic aqueous waste
- B06 Caustic solution with metals but no cyanides
- B07 Caustic solution with metals and cyanides
- B08 Caustic solution with cyanides but no metals
- B09 Spent caustic
- B10 Caustic aqueous waste
- B11 Aqueous waste with reactive sulfides
- B12 Aqueous waste with other reactives (e.g., explosives)
- B13 Other aqueous waste with high dissolved solids
- B14 Other aqueous waste with low dissolved solids
- B15 Scrubber water
- B16 Leachate
- B17 Waste liquid mercury
- B18 Other inorganic liquid (specify in "Facility Notes")

INORGANIC SLUDGES—Waste that is primarily inorganic, with moderate-to-high water content and low organic content; pumpable.

- B19 Lime sludge without metals
- B20 Lime sludge with metals/metal hydroxide sludge
- B21 Wastewater treatment sludge with toxic organics
- B22 Other wastewater treatment sludge
- B23 Untreated plating sludge without cyanides
- B24 Untreated plating sludge with cyanides
- B25 Other sludge with cyanides
- B26 Sludge with reactive sulfides
- B27 Sludge with other reactives
- B28 Degreasing sludge with metal scale or filings
- B29 Air pollution control device sludge (e.g., fly ash, wet scrubber sludge)
- B30 Sediment or lagoon dragout contaminated with organics
- B31 Sediment or lagoon dragout contaminated with inorganics only

- B32 Drilling mud
- B33 Asbestos slurry or sludge
- B34 Chloride or other brine sludge
- B35 Other inorganic sludge (specify in "Facility Notes")

INORGANIC SOLIDS—Waste that is primarily inorganic and solid, with low organic content and low-to-moderate water content; not pumpable.

- B36 Soil contaminated with organics
- B37 Soil contaminated with inorganics only
- B38 Ash, slag, or other residue from incineration of wastes
- B39 Other "dry" ash, slag, or thermal residue
- B40 "Dry" lime or metal hydroxide solids chemically "fixed"
- B41 "Dry" lime or metal hydroxide solids not "fixed"
- B42 Metal scale, filings, or scrap
- B43 Empty or crushed metal drums or containers
- B44 Batteries or battery parts, casings, cores
- B45 Spent solid filters or adsorbents
- B46 Asbestos solids and debris
- B47 Metal-cyanide salts/chemicals
- B48 Reactive cyanide salts/chemicals
- B49 Reactive sulfide salts/chemicals
- B50 Other reactive salts/chemicals
- B51 Other metal salts/chemicals
- B52 Other waste inorganic chemicals
- B53 Lab packs of old chemicals only
- B54 Lab packs of debris only
- B55 Mixed lab packs
- B56 Other inorganic solids (specify in "Facility Notes")

INORGANIC GASES—Waste that is primarily inorganic with a low organic content and is a gas at atmospheric pressure.

- B57 Inorganic gases

ORGANIC LIQUIDS—Waste that is primarily organic and is highly fluid, with low inorganic solids content and low-to-moderate water content.

- B58 Concentrated solvent-water solution
- B59 Halogenated (e.g., chlorinated) solvent
- B60 Nonhalogenated solvent

- B61 Halogenated/nonhalogenated solvent mixture
- B62 Oil-water emulsion or mixture
- B63 Waste oil
- B64 Concentrated aqueous solution of other organics
- B65 Concentrated phenolics
- B66 Organic paint, ink, lacquer, or varnish
- B67 Adhesives or epoxies
- B68 Paint thinner or petroleum distillates
- B69 Reactive or polymerizable organic liquid
- B70 Other organic liquid (specify in "Facility Notes")

ORGANIC SLUDGES—Waste that is primarily organic, with low-to-moderate inorganic solids content and water content; pumpable.

- B71 Still bottoms of halogenated (e.g., chlorinated) solvents or other organic liquids
- B72 Still bottoms of nonhalogenated solvents or other organic liquids
- B73 Oily sludge
- B74 Organic paint or ink sludge
- B75 Reactive or polymerizable organics
- B76 Resins, tars, or tarry sludge
- B77 Biological treatment sludge
- B78 Sewage or other untreated biological sludge
- B79 Other organic sludge (specify in "Facility Notes")

ORGANIC SOLIDS—Waste that is primarily organic and solid, with low-to-moderate inorganic content and water content; not pumpable.

- B80 Halogenated pesticide solid
- B81 Nonhalogenated pesticide solid
- B82 Solid resins or polymerized organics
- B83 Spent carbon
- B84 Reactive organic solid
- B85 Empty fiber or plastic containers
- B86 Lab packs of old chemicals only
- B87 Lab packs of debris only
- B88 Mixed lab packs
- B89 Other halogenated organic solid
- B90 Other nonhalogenated organic solid

ORGANIC GASES—Waste that is primarily organic with low-to-moderate inorganic content and is a gas at atmospheric pressure.

- B91 Organic gases

EXHIBIT 8-2.
(Refers to question 8.06(c))

MANAGEMENT METHODS

- M1 = Discharge to publicly owned
wastewater treatment works
M2 = Discharge to surface water under
NPDES
M3 = Discharge to off-site, privately
owned wastewater treatment works
M4 = Scrubber: a) caustic; b) water;
c) other
M5 = Vent to: a) atmosphere; b) flare;
c) other (specify) _____
M6 = Other (specify) _____

TREATMENT AND RECYCLING

Incineration/thermal treatment

- 1I Liquid injection
2I Rotary or rocking kiln
3I Rotary kiln with a liquid injection
unit
4I Two stage
5I Fixed hearth
6I Multiple hearth
7I Fluidized bed
8I Infrared
9I Fume/vapor
10I Pyrolytic destructor
11I Other incineration/thermal
treatment

Reuse as fuel

- 1RF Cement kiln
2RF Aggregate kiln
3RF Asphalt kiln
4RF Other kiln
5RF Blast furnace
6RF Sulfur recovery furnace
7RF Smelting, melting, or refining
furnace
8RF Coke oven
9RF Other industrial furnace
10RF Industrial boiler
11RF Utility boiler
12RF Process heater
13RF Other reuse as fuel unit

Fuel Blending

- 1FB Fuel blending

Solidification

- 1S Cement or cement/silicate processes
2S Pozzolanic processes
3S Asphaltic processes
4S Thermoplastic techniques
5S Organic polymer techniques
6S Jacketing (macro-encapsulation)
7S Other solidification

Recovery of solvents and liquid organics
for reuse

- 1SR Fractionation
2SR Batch still distillation
3SR Solvent extraction
4SR Thin-film evaporation
5SR Filtration
6SR Phase separation
7SR Dessication
8SR Other solvent recovery

Recovery of metals

- 1MR Activated carbon (for metals
recovery)
2MR Electrodialysis (for metals
recovery)
3MR Electrolytic metal recovery
4MR Ion exchange (for metals recovery)
5MR Reverse osmosis (for metals
recovery)
6MR Solvent extraction (for metals
recovery)
7MR Ultrafiltration (for metals
recovery)
8MR Other metals recovery

Wastewater Treatment

After each wastewater treatment type
listed below (1WT - 66WT) specify
a) tank; or b) surface impoundment
(i.e., 63WTa)

Equalization

- 1WT Equalization

Cyanide oxidation

- 2WT Alkaline chlorination
3WT Ozone
4WT Electrochemical
5WT Other cyanide oxidation

General oxidation (including
disinfection)

- 6WT Chlorination
7WT Ozonation
8WT UV radiation
9WT Other general oxidation

Chemical precipitation¹

- 10WT Lime
11WT Sodium hydroxide
12WT Soda ash
13WT Sulfide
14WT Other chemical precipitation

Chromium reduction

- 15WT Sodium bisulfite
16WT Sulfur dioxide

EXHIBIT 8-2. (continued)

MANAGEMENT METHODS

| | |
|------------------------------------------------------------------------------------|--------------------------------------------------------|
| 17WT Ferrous sulfate | 48WT Coalescing plate separation |
| 18WT Other chromium reduction | 49WT Other oil skimming |
| Complexed metals treatment (other than chemical precipitation by pH adjustment) | Other liquid phase separation |
| 19WT Complexed metals treatment ¹ | 50WT Decanting |
| Emulsion breaking | 51WT Other liquid phase separation |
| 20WT Thermal | Biological treatment |
| 21WT Chemical | 52WT Activated sludge |
| 22WT Other emulsion breaking | 53WT Fixed film-trickling filter |
| Adsorption | 54WT Fixed film-rotating contactor |
| 23WT Carbon adsorption | 55WT Lagoon or basin, aerated |
| 24WT Ion exchange | 56WT Lagoon, facultative |
| 25WT Resin adsorption | 57WT Anaerobic |
| 26WT Other adsorption | 58WT Other biological treatment |
| Stripping | Other wastewater treatment |
| 27WT Air stripping | 59WT Wet air oxidation |
| 28WT Steam stripping | 60WT Neutralization |
| 29WT Other stripping | 61WT Nitrification |
| Evaporation | 62WT Denitrification |
| 30WT Thermal | 63WT Flocculation and/or coagulation |
| 31WT Solar | 64WT Settling (clarification) |
| 32WT Vapor recompression | 65WT Reverse osmosis |
| 33WT Other evaporation | 66WT Other wastewater treatment |
| Filtration | OTHER WASTE TREATMENT |
| 34WT Diatomaceous earth | 1TR Other treatment |
| 35WT Sand | 2TR Other recovery for reuse |
| 36WT Multimedia | ACCUMULATION |
| 37WT Other filtration | 1A Containers |
| Sludge dewatering | 2A Tanks |
| 38WT Gravity thickening | STORAGE |
| 39WT Vacuum filtration | 1ST Container (i.e., barrel, drum) |
| 40WT Pressure filtration (belt, plate and frame, or leaf) | 2ST Tank |
| 41WT Centrifuge | 3ST Waste pile |
| 42WT Other sludge dewatering | 4ST Surface impoundment |
| Air flotation | 5ST Other storage |
| 43WT Dissolved air flotation | DISPOSAL |
| 44WT Partial aeration | 1D Landfill |
| 45WT Air dispersion | 2D Land treatment |
| 46WT Other air flotation | 3D Surface impoundment (to be closed as a landfill) |
| Oil skimming | 4D Underground injection well |
| 47WT Gravity separation | |

¹ Chemical precipitation is a treatment operation whereby the pH of a waste is adjusted to the range necessary for removal (precipitation) of contaminants. However, if the pH is adjusted solely to achieve a neutral pH, THE OPERATION SHOULD BE CONSIDERED NEUTRALIZATION (60WT).

PART C TRANSPORTATION OF RESIDUALS TO OFF-SITE FACILITIES

8.07 Identify any special handling instructions for the residuals identified in your
CBI process block or residual treatment block flow diagram(s). (Refer to the
instructions for an example.)

☐

| <u>Stream ID Code</u> | <u>Special Handling Instructions</u> |
|-------------------------------|--------------------------------------|
| <hr/> | <hr/> |
| <hr/> | <hr/> |
| <hr/> | <hr/> |
| <hr/> | <hr/> |
| <hr/> | <hr/> |
| <hr/> | <hr/> |
| <hr/> | <hr/> |

8.08 Identify those construction materials that are recommended (compatible) for
CBI containing or transporting the listed substance, and those materials that you know
could cause a dangerous reaction or significant corrosion (incompatible) if they are
used to contain or transport the listed substance.

☐

| <u>Stream ID Code</u> | <u>Construction Materials</u> | |
|-------------------------------|-----------------------------------------|-------------------------------------------|
| | <u>Compatible Containment Materials</u> | <u>Incompatible Containment Materials</u> |
| <hr/> | <hr/> | <hr/> |
| <hr/> | <hr/> | <hr/> |
| <hr/> | <hr/> | <hr/> |
| <hr/> | <hr/> | <hr/> |
| <hr/> | <hr/> | <hr/> |
| <hr/> | <hr/> | <hr/> |
| <hr/> | <hr/> | <hr/> |

☐ Mark (X) this box if you attach a continuation sheet.

CBI
[]

[illegible][illegible]

63

PART D ON-SITE RESIDUALS MANAGEMENT INFORMATION

8.10 Identification Permit Numbers -- List any applicable identification or permit numbers for your facility.

EPA National Pollutant Discharge Elimination System

(NPDES) Permit No.(s)
(discharges to surface water)

EPA Underground Injection Well

(UIC) Permit No.(s)
(underground injection of fluids)

EPA Point Source Discharge

(PSD) Permit No.(s)
(air emissions from point sources)

EPA Hazardous Waste Management

Facility Permit No.(s)

Other EPA Permits (specify)

.....
.....
.....

☐ Mark (X) this box if you attach a continuation sheet.

8.11 On-Site Storage or Treatment in Piles -- Complete this table for the five largest (by volume) piles that are used on-site to store or treat the residuals identified in your process block or residual treatment block flow diagram(s).

☐

| Pile | Quantity Managed per Year (cubic meters) | Under Roofed Structure (Y/N) | Type of Contain- ment Provided ¹ | Synthetic Liner Base (Y/N) ² | Frequency of Transfer and/or Handling Operations ³ | Stream ID Code |
|------|---------------------------------------------------|---------------------------------------|------------------------------------------------------|--------------------------------------------------|---------------------------------------------------------------------------|----------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate the type of containment provided:

C = Complete (includes both dike containment and underground (leachate) containment)

P1 = Partial-1 (includes just dike containment)

P2 = Partial-2 (includes just underground (leachate) containment)

N = None

²Waste may lie directly on the synthetic liner or the liner may be covered with a clay layer

³Use the following codes to designate frequency of transfer and/or handling operations:

A = Daily

B = Weekly

C = Monthly

D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.12 On-Site Storage or Treatment in Tanks -- Complete the following table for the five largest (by volume) tanks that are used on-site to store or treat the residuals identified in your process block or residual treatment block flow diagram(s).

☐

| Tank | Design Capacity (liters) | Quantity per Year (liters) | Treatment Types ¹ | Average Length of Storage (days) | Part of Wastewater Treatment Train (Y/N) ² | Tank Covered (Y/N) | Type of Containment Provided ³ | Stream ID Code |
|------|--------------------------|----------------------------|------------------------------|----------------------------------|-------------------------------------------------------|--------------------|-------------------------------------------|----------------|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Indicate "S" for storage or use the codes provided in Exhibit 8-3 (which follows question 8.13) to designate treatment types

²Treatment train from which wastewater is discharged under a NPDES permit or through a sewer system to a publicly owned treatment works

³Use the following codes to designate the type of containment provided:

C = Complete (includes both dike containment and underground (leachate) containment)
P1 = Partial-1 (includes just dike containment)
P2 = Partial-2 (includes just underground (leachate) containment)
N = None

☐ Mark (X) this box if you attach a continuation sheet.

8.13 On-Site Storage, Treatment, or Disposal in Containers -- Complete the following table for the five largest (by volume) types of free standing containers that are used on-site to store, treat, or dispose of the CBI residuals identified in your process block or residual treatment block flow diagram(s).

☐

| Container | Design Capacity (liters) | Quantity Stored per Year (liters) | Treatment Types ¹ | Average Length of Storage (days) | Average Daily Stored Quantity (liters) | Maximum Operational Storage Capacity (liters) | Storage Base Material ² | Stream ID Code |
|-----------|--------------------------|-----------------------------------|------------------------------|----------------------------------|----------------------------------------|-----------------------------------------------|------------------------------------|----------------|
| 1 | | | | | | | | |
| 2 | | | | | | | | |
| 3 | | | | | | | | |
| 4 | | | | | | | | |
| 5 | | | | | | | | |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Indicate "S" for storage and use the codes provided in Exhibit 8-3 to designate treatment types

If residual is stored, indicate (Y/N) in parenthesis whether the storage area is designed and operated to collect and contain surface runoff

²Use the following codes to designate storage base materials:

A = Concrete

B = Asphalt

C = Soil

D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

EXHIBIT 8-3
[REFERS TO QUESTIONS 8.12, 8.13, AND 8.29]

WASTEWATER TREATMENT TYPES

WASTEWATER TREATMENT

Equalization

1WT Equalization

Cyanide oxidation

2WT Alkaline chlorination

3WT Ozone

4WT Electrochemical

5WT Other cyanide oxidation

General oxidation (including disinfection)

6WT Chlorination

7WT Ozonation

8WT UV Radiation

9WT Other general oxidation

Chemical Precipitation¹

10WT Lime

11WT Sodium hydroxide

12WT Soda ash

13WT Sulfide

14WT Other chemical precipitation

Chromium reduction

15WT Sodium bisulfite

16WT Sulfur dioxide

17WT Ferrous sulfate

18WT Other chromium reduction

Complexed metals treatment (other than chemical precipitation by pH adjustment)

19WT Complexed metals treatment

Emulsion breaking

20WT Thermal

21WT Chemical

22WT Other emulsion breaking

Adsorption

23WT Carbon adsorption

24WT Ion exchange

25WT Resin adsorption

26WT Other adsorption

Stripping

27WT Air stripping

28WT Steam stripping

29WT Other stripping

Evaporation

30WT Thermal

31WT Solar

32WT Vapor recompression

33WT Other evaporation

Filtration

34WT Diatomaceous earth

35WT Sand

36WT Multimedia

37WT Other filtration

Sludge dewatering

38WT Gravity thickening

39WT Vacuum filtration

40WT Pressure filtration (belt, plate and frame, or leaf)

41WT Centrifuge

42WT Other sludge dewatering

Air flotation

43WT Dissolved air flotation

44WT Partial aeration

45WT Air dispersion

46WT Other air flotation

Oil skimming

47WT Gravity separation

48WT Coalescing plate separation

49WT Other oil skimming

Other liquid phase separation

50WT Decanting

51WT Other liquid phase separation

Biological treatment

52WT Activated sludge

53WT Fixed film--trickling filter

54WT Fixed film--rotating contactor

55WT Lagoon or basin, aerated

56WT Lagoon, facultative

57WT Anaerobic

58WT Other biological treatment

Other wastewater treatment

59WT Wet air oxidation

60WT Neutralization

61WT Nitrification

62WT Denitrification

63WT Flocculation and/or coagulation

64WT Settling (clarification)

65WT Reverse osmosis

66WT Other wastewater treatment

¹Chemical precipitation is a treatment operation whereby the pH of a waste is adjusted to the range necessary for removal (precipitation) of contaminants. However, if the pH is adjusted solely to achieve a neutral pH, THE OPERATION SHOULD BE CONSIDERED NEUTRALIZATION (60WT).

8.14 On-Site Burning in Boilers -- Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your CBI process block or residual treatment block flow diagram(s).

☐

| <u>Boiler</u> | <u>Boiler Type¹</u> | <u>Average Boiler Load² (%)</u> | <u>Average Fuel Replacement Ratio³ (%)</u> | <u>Stream ID Code</u> |
|---------------|--------------------------------|--------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------|
| <u>1</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u>2</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u>3</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u>4</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u>5</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate boiler type:

F = Fire tube
W = Water tube

²Designate the average boiler load when firing residual (percent of capacity)

³Designate the average fuel replacement ratio as a percentage (heat-input basis)

☐ Mark (X) this box if you attach a continuation sheet.

8.15 Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

| Boiler | Boiler Heat Capacity (heat input in kJ/hr) | Primary Boiler Fuel ¹ |
|--------|-----------------------------------------------|----------------------------------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate the primary boiler fuel:

A = Oil
B = Gas
C = Coal

D = Wood
E = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.16 Provide the following information for the residuals identified in your process block or residual treatment block flow diagram(s) that are burned in on-site boilers. Photocopy this question and complete it separately for each boiler.

CBI

☐ Boiler number
Stream ID code(s)

| | Residual, as Fired (or residual mixture if residuals are blended) | Boiler Fuel, as Fired (residual(s) plus primary fuel) |
|----------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------|
| Btu content (J/kg) | | |
| Average | _____ | _____ |
| Minimum | _____ | _____ |
| Total halogen content (% by wt.) | | |
| Average | _____ | _____ |
| Maximum | _____ | _____ |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

☐ Mark (X) this box if you attach a continuation sheet.

8.17 Complete the following table for the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

| Boiler | Stream ID Code | Listed Metal ¹ | Total Metal Content (% by weight) | |
|----------|----------------------|------------------------------|-----------------------------------------|-------|
| | | | Avg. | Max. |
| <u>1</u> | _____ | _____ | _____ | _____ |
| | | _____ | _____ | _____ |
| | | _____ | _____ | _____ |
| <u>2</u> | _____ | _____ | _____ | _____ |
| | | _____ | _____ | _____ |
| | | _____ | _____ | _____ |
| <u>3</u> | _____ | _____ | _____ | _____ |
| | | _____ | _____ | _____ |
| | | _____ | _____ | _____ |
| <u>4</u> | _____ | _____ | _____ | _____ |
| | | _____ | _____ | _____ |
| | | _____ | _____ | _____ |
| <u>5</u> | _____ | _____ | _____ | _____ |
| | | _____ | _____ | _____ |
| | | _____ | _____ | _____ |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹A listed metal is either an EP toxic metal or a metal that is included on the California List (as defined in section 3004(d)(2) of the Resource Conservation and Recovery Act)

☐ Mark (X) this box if you attach a continuation sheet.

8.19 Stack Parameters -- Provide the following information for each of the five largest (by capacity) boilers that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each boiler.

CBI

☐ Boiler number

Stack height m
Stack inner diameter (at outlet) m
Exhaust temperature °C
Vertical or horizontal stack (V or H)
Annual emissions for the listed substance kg/yr
Height of attached or adjacent building m
Width of attached or adjacent building m
Building cross-sectional area m²
Emission exit velocity m/sec
Average emission rate of exit stream kg/min
Maximum emission rate of exit stream kg/min
Average duration of maximum emission rate of exit stream . min
Frequency of maximum emission rate of exit stream times/year

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1
No 2

☐ Mark (X) this box if you attach a continuation sheet.

JUL 27 1987

2915

MATERIAL SAFETY DATA SHEET

DATE: 07/22/87

PAGE: 1

PRODUCT NUMBER: 718020

PRODUCT NAME: STEPANFOAM C-614-T (3012)

*
* STEPAN COMPANY EMERGENCY INFORMATION *
* NORTHFIELD, IL. 60093 MEDICAL: 1-800-228-5635 *
* (312) 446-7500 CHEMTREC: 1-800-424-9300 *
*

* SECTION I: GENERAL INFORMATION *

PRODUCT NUMBER: 718020 PRODUCT NAME: STEPANFOAM C-614-T (3012)
PRODUCT CLASS: TOLUENE DIISOCYANATE.
PRECAUTIONS: POISON.
REFER TO BILL OF LADING OR CONTAINER LABEL FOR DOT OR OTHER
TRANSPORTATION HAZARD CLASSIFICATION, IF ANY.

* SECTION II: HAZARDOUS INGREDIENTS *

| INGREDIENT (CAS #) | OSHA PEL (PPM) | ACGIH TLV (PPM) | OTHER |
|---------------------------------------------------------|-------------------|--------------------|-------|
| TOLUENE-2,4-DIISOCYANATE (TDI) (C) (584-84-9) 94% | 0.02 | 0.005 | |

NE = NOT ESTABLISHED.
NL = NOT LISTED.
(C) = IDENTIFIED AS A CARCINOGEN BY OSHA, IARC, OR NTP.

* SECTION III: PHYSICAL/CHEMICAL DATA *

BOILING POINT:

(CONTINUED)

MATERIAL SAFETY DATA SHEET

DATE: 07/22/87

PAGE: 2

PRODUCT NUMBER: 718020

PRODUCT NAME: STEPANFOAM C-614-T (3012)

OVER 200 DEG F. (93 DEG C.).
% VOLATILE BY WEIGHT:
NIL
EVAPORATION RATE: ESTIMATED SLOWER THAN ETHYL ETHER.

VAPOR DENSITY: ESTIMATED HEAVIER THAN AIR.
WEIGHT PER GALLON:
10.0 LBS.

* SECTION IV: FIRE AND EXPLOSION DATA *

FLASH POINT (SETA FLASH CLOSED CUP):
OVER 200 DEG F. (93 DEG C.).
EXPLOSIVE LIMITS:
LOWER:
1%
EXTINGUISHING MEDIA: DRY CHEMICAL, CARBON DIOXIDE, FOAM, OR
WATER FOG. CLASS BC, ABC FIRE EXTINGUISHER.
SPECIAL FIRE FIGHTING PROCEDURES: SELF-CONTAINED POSITIVE PRESSURE
BREATHING APPARATUS AND PROTECTIVE
CLOTHING SHOULD BE WORN IN FIGHT-
ING FIRES INVOLVING CHEMICALS.
UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE KNOWN.

* SECTION V: REACTIVITY DATA *

STABILITY: STABLE
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
INCOMPATIBILITY (MATERIALS TO AVOID):
STRONG OXIDIZING AGENTS
WATER, ALCOHOLS, AMINES, ALKALIES, METAL COMPOUNDS (CATALYSTS).
HAZARDOUS DECOMPOSITION PRODUCTS:
CYANIDES AND AMMONIA MAY BE FORMED.

* SECTION VI: HEALTH HAZARD DATA *

EFFECTS OF OVEREXPOSURE/EMERGENCY AND FIRST AID PROCEDURES
(CONTINUED)

MATERIAL SAFETY DATA SHEET

DATE: 07/22/87

PRODUCT NUMBER: 718020

PRODUCT NAME: STEPANFOAM C-614-T (3012)

PAGE: 3

EYES: CONTACT WITH EYES IS PAINFUL AND IRRITATING.
FLUSH EYES IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES.

SKIN: PROLONGED OR REPEATED CONTACT WITH SKIN CAUSES IRRITATION.
WASH OFF SKIN WITH WATER. REMOVE CONTAMINATED CLOTHING AND CLEAN BEFORE REUSE.

INHALATION: MIST CAUSED BY MANUFACTURING OPERATIONS IRRITATES NASAL PASSAGES.
IF VAPORS OR MIST CAUSE IRRITATION OR DISTRESS, REMOVE TO FRESH AIR.
GIVE OXYGEN OR APPLY ARTIFICIAL RESPIRATION, IF NEEDED.

INGESTION: IF SWALLOWED, CONSULT A PHYSICIAN IMMEDIATELY.

CHRONIC EFFECTS AND MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:
CHRONIC EFFECTS AND MEDICAL CONDITIONS AGGRAVATED BY OVER-EXPOSURE TO THIS PRODUCT HAVE NOT BEEN ESTABLISHED.
UNNECESSARY EXPOSURE TO THIS PRODUCT OR ANY CHEMICAL SHOULD BE AVOIDED.

IF ANY SYMPTOMS PERSIST, CONSULT A PHYSICIAN.
IN A NATIONAL TOXICOLOGY PROGRAM (NTP) STUDY, TDI WAS CARCINOGENIC WHEN GIVEN ORALLY TO RATS AND MICE AT MAXIMUM TOLERATED DOSES. TDI WAS NOT CARCINOGENIC TO RATS IN A TWO-YEAR INHALATION STUDY.
SEE SECTION II FOR HAZARDOUS INGREDIENTS PRESENT IN THIS PRODUCT AND THEIR CORRESPONDING THRESHOLD LIMIT VALUES.

FOR ADDITIONAL MEDICAL INFORMATION, CALL 1-800-228-5635

* SECTION VII: SPILL, LEAK, AND DISPOSAL PROCEDURES *

CONTAIN ALL SPILLS AND LEAKS TO PREVENT DISCHARGE INTO THE ENVIRONMENT.
VENTILATE AREA.

SMALL SPILLS: SOAK UP WITH ABSORBANT, SHOVEL INTO WASTE CONTAINER, FLUSH AREA WITH WATER.

LARGE SPILLS: RECOVER LIQUID FOR REPROCESSING OR DISPOSAL.
(CONTINUED)

MATERIAL SAFETY DATA SHEET

DATE: 07/22/87

PAGE: 4

PRODUCT NUMBER: 718020

PRODUCT NAME: STEPANFOAM C-614-T (3012)

WASTE DISPOSAL: RECOVER MATERIAL OR DISPOSE (INCINERATION IS
PREFERRED) IN ACCORDANCE WITH ALL APPLICABLE FEDERAL,
STATE, AND LOCAL REGULATIONS. MATERIAL COLLECTED WITH
ABSORBANT MAY BE DISPOSED IN A PERMITTED LANDFILL IN
ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
EMPTY CONTAINER MAY RETAIN VAPOR OR PRODUCT RESIDUE.
OBSERVE ALL LABELED SAFEGUARDS UNTIL CONTAINER IS
CLEANED, RECONDITIONED, OR DESTROYED.

SECTION VIII: PROTECTIVE MEASURES

EYE PROTECTION: WEAR FULL FACE SHIELD OR GOGGLES WHEN HANDLING.

PROTECTIVE GLOVES: USE IMPERVIOUS GLOVES.

RESPIRATORY PROTECTION:

IF VAPORS ARE PRESENT, USE NIOSH OR MSHA APPROVED RESPIRATOR FOR
ORGANIC VAPORS, AIR-LINE RESPIRATOR, OR A SELF-CONTAINED
BREATHING APPARATUS.

VENTILATION:

USE VENTILATION ADEQUATE TO KEEP HAZARDOUS INGREDIENTS BELOW
THEIR TLV (SEE SECTION II).

OTHER PROTECTIVE EQUIPMENT:

WEAR PROTECTIVE CLOTHING TO PREVENT REPEATED OR PROLONGED
CONTACT.

EYE WASH STATION AND SAFETY SHOWER SHOULD BE NEAR WORK AREA.

SECTION IX: SPECIAL PRECAUTIONS

HANDLING AND STORAGE:

AVOID OVERHEATING OR FREEZING.

AVOID OPEN FIRE OR FLAME.

OTHER PRECAUTIONS:

SPIILLED MATERIAL IS SLIPPERY. WASH THOROUGHLY AFTER HANDLING. IF
INGESTED, CALL A PHYSICIAN.

DO NOT POUR INTO DRAINS, AS SOLIDS THAT FORM WILL PLUG SEWERS.
1% AMMONIA MAY BE USED TO NEUTRALIZE SPILLS.

(CONTINUED)

MATERIAL SAFETY DATA SHEET

DATE: 07/22/87

PAGE: 5

PRODUCT NUMBER: 718020

PRODUCT NAME: STEFANFOAM C-614-T (3012)

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(R) REGISTERED TRADEMARK OR APPLICATION PENDING.

***** LAST REVISION DATE: 07/21/87 15:46:53 *****

8.20 On-Site Burning in Incinerators -- Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

| <u>Incinerator</u> | <u>Incinerator Type¹</u> | <u>Primary Incinerator Fuel²</u> | <u>Average Fuel Replacement Ratio³</u> | <u>Stream ID Code</u> |
|--------------------|-------------------------------------|---------------------------------------------|---------------------------------------------------|-----------------------------|
| <u>1</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u>2</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u>3</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate the incinerator type:

| | |
|-----------------------------------------------|-----------------------------|
| 1I = Liquid injection | 6I = Multiple hearth |
| 2I = Rotary or rocking kiln | 7I = Fluidized bed |
| 3I = Rotary kiln with a liquid injection unit | 8I = Infrared |
| 4I = Two stage | 9I = Fume/vapor |
| 5I = Fixed hearth | 10I = Pyrolytic destructor |
| | 11I = Other (specify) _____ |

²Use the following codes to designate the primary incinerator fuel:

| | |
|----------|---------------------------|
| A = Oil | D = Wood |
| B = Gas | E = Other (specify) _____ |
| C = Coal | |

³Designate the percentage of auxiliary fuel used when firing residual (percent of capacity)

☐ Mark (X) this box if you attach a continuation sheet.

8.22 Describe the combustion chamber design parameters for each of the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

☐

| Incinerator | Combustion Chamber Temperature (°C) | | Location of Temperature Monitor | | Residence Time In Combustion Chamber (seconds) | |
|-------------|-------------------------------------|-----------|---------------------------------|-----------|------------------------------------------------|-----------|
| | Primary | Secondary | Primary | Secondary | Primary | Secondary |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

8.23 Complete the following table for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s). *N/A - offsite Treatment*

☐

| Incinerator | Air Pollution Control Device ¹ | Types of Emissions Data Available |
|-------------|-------------------------------------------|-----------------------------------|
| 1 | | |
| 2 | | |
| 3 | | |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate the air pollution control device:

S = Scrubber (include type of scrubber in parenthesis)
 E = Electrostatic precipitator
 O = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.24 Stack Parameters -- Provide the following information on stack parameters for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).
CBI Photocopy this question and complete it separately for each incinerator.

☐ Incinerator number _____

Stack height _____ m

Stack inner diameter (at outlet) _____ m

Exhaust temperature _____ °C

Vertical or horizontal stack _____ (V or H)

Annual emissions for the listed substance _____ kg/yr

Height of attached or adjacent building _____ m

Width of attached or adjacent building _____ m

Building cross-sectional area _____ m²

Emission exit velocity _____ m/sec

Average emission rate of exit stream _____ kg/min

Maximum emission rate of exit stream _____ kg/min

Average duration of maximum emission rate of exit stream . _____ min

Frequency of maximum emission rate of exit stream _____ times/year

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

☐ Mark (X) this box if you attach a continuation sheet.

8.25 Provide the following information on the incinerator feed for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each incinerator.

CBI

☐ Incinerator number

Stream ID code(s)

| | Residual, as Fired (or residual mixture if residuals are blended) | Incinerator Fuel, as Fired (residual(s) plus primary fuel) |
|-------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------|
| Btu content (J/kg) | | |
| Average | _____ | _____ |
| Minimum | _____ | _____ |
| Feed rate (kg/hr) | _____ | _____ |
| Feed rate (J/hr)(kg/hr x J/kg) | _____ | _____ |
| Total halogen content (% by weight) | | |
| Average | _____ | _____ |
| Maximum | _____ | _____ |
| Total ash content (% by weight) | | |
| Average | _____ | _____ |
| Maximum | _____ | _____ |
| Total water content (% by weight) | | |
| Average | _____ | _____ |
| Maximum | _____ | _____ |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

☐ Mark (X) this box if you attach a continuation sheet.

8.26 Provide the following information on the incinerator feed for the three largest (by capacity) incinerators that are used on-site to burn the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

| <u>Incinerator</u> | <u>Stream ID Code</u> | <u>Listed Metal¹</u> | <u>Total Metal Content (% by weight)</u> | |
|--------------------|-------------------------------|-------------------------------------|--------------------------------------------------|-----------------------------|
| | | | <u>Avg.</u> | <u>Max.</u> |
| <u>1</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| | | <u> </u> | <u> </u> | <u> </u> |
| | | <u> </u> | <u> </u> | <u> </u> |
| <u>2</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| | | <u> </u> | <u> </u> | <u> </u> |
| | | <u> </u> | <u> </u> | <u> </u> |
| <u>3</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| | | <u> </u> | <u> </u> | <u> </u> |
| | | <u> </u> | <u> </u> | <u> </u> |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹ A listed metal is either an EP toxic metal or a metal that is included on the California List (as defined in section 3004(d)(2) of the Resource Conservation and Recovery Act)

☐ Mark (X) this box if you attach a continuation sheet.

8.27 On-Site Storage, Treatment or Disposal in a Land Treatment Site -- Complete the following table for each on-site land treatment site that is used to store, treat, or dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

☐ Total area actively used for land treatment m²
Average slope of site (degree incline)
Surface water runoff management¹

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to describe the management practices for surface water runoff:

A = Collection prior to treatment
B = Reapplication to the site

C = Canalization prior to treatment
D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.28 Complete the following table for the residuals identified in your process block or residual treatment block flow diagram(s) that are managed in an on-site land treatment operation.

CBI

☐

| <u>Stream ID Code</u> | <u>Year Land Treatment Initiated</u> | <u>Methods Used to Apply Residuals¹</u> | <u>Application Rate²</u> |
|---------------------------|------------------------------------------|--------------------------------------------------------|-----------------------------------------|
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to describe the method(s) used to apply residuals to the land treatment site:

- A = Surface spreading or spray irrigation without plow or disc incorporation
- B = Surface spreading or spray irrigation with plow or disc incorporation to a depth of _____ cm
- C = Subsurface injection to a depth of _____ cm
- D = Other (specify) _____

²Use the following codes to designate the application rate:

- A = Daily
- B = Weekly
- C = Monthly
- D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.29 On-Site Storage, Treatment, or Disposal in Surface Impoundments -- Complete the following table for the five largest (by volume) surface impoundments that are used on-site to treat, store, or dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

☐

| Impound- ment | Total Capacity (liters) | Specify Storage, Disposal or Treatment Type if Applicable ¹ | Average Residency Time (days) ² | SYNTHETIC LINER | | CLAY LINER | | LEACHATE COLLECTION SYSTEM | | Stream ID Code |
|------------------|-------------------------------|---------------------------------------------------------------------------------------|-----------------------------------------------------|---------------------|-------------------------------------|---------------------|--------------------------------|----------------------------------|--------------------------------|-------------------|
| | | | | No. of Liners | Thick- ness (cm) ³ | No. of Liners | Thickness (cm) ³ | Installed (Y/N) | Leachate Collected (Y/N) | |
| 1 | | | | | | | | | | |
| 2 | | | | | | | | | | |
| 3 | | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Indicate "S" for storage, "D" for disposal, or use the codes provided in Exhibit 8-3 (which follows question 8.13) to designate treatment type

²Indicate the residency time for the surface impoundment's flow through stream. In addition, indicate in parenthesis using the following codes the frequency with which the impoundment is dredged to clear the residue that collects on the bottom:

A = Daily
B = Weekly

C = Monthly
D = Other (specify) _____

³Indicate the thickness of each liner

☐ Mark (X) this box if you attach a continuation sheet.

8.30 On-Site Disposal in Landfill Cells -- Complete the following table for the five largest (by volume) landfill cells that are used on-site to dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

[]

| Landfill Cell | Quantity per year (kg) | DRAINAGE LAYER | | CLAY LINER | | SYNTHETIC LINER | | | Stream ID Code |
|---------------|------------------------|-----------------|----------------|---------------|-----------------------------|-----------------|----------|-----------------------------|----------------|
| | | Installed (Y/N) | Thickness (cm) | No. of Liners | Thickness (cm) ¹ | No. of Liners | Material | Thickness (cm) ¹ | |
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Indicate the thickness of each liner

[] Mark (X) this box if you attach a continuation sheet.

8.31 State the total area actively used on-site for your landfill.

CBI

☐ Total area actively used m²

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

8.32 Complete the following table for the five largest landfill cells (by volume) that contain residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

| Landfill Cell | WORKING COVER | | CAP DESIGN CLAY LAYER | | LEACHATE COLLECTION SYSTEM | |
|------------------|------------------|--------------------------------|--------------------------|-------------------|-------------------------------|--------------------------------|
| | Average Use | Thickness ¹ (cm) | Installed (Y/N) | Thickness (cm) | Installed (Y/N) | Leachate Collected (Y/N) |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate the average use rate:

A = Daily

B = Weekly

C = Monthly

D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

8.33 On-Site Disposal in Injection Wells -- Complete the following table for the five largest (by volume) injection wells that are used on-site to dispose of the residuals identified in your process block or residual treatment block flow diagram(s).

CBI

☐

| <u>Well</u> | <u>Well Type¹</u> | <u>Quantity Disposed (liters)²</u> | <u>Stream ID Code</u> |
|-------------|----------------------------------|-------------------------------------------------------|-------------------------------|
| <u>1</u> | <u> </u> | <u> </u> | <u> </u> |
| <u>2</u> | <u> </u> | <u> </u> | <u> </u> |
| <u>3</u> | <u> </u> | <u> </u> | <u> </u> |
| <u>4</u> | <u> </u> | <u> </u> | <u> </u> |
| <u>5</u> | <u> </u> | <u> </u> | <u> </u> |

Indicate if Office of Solid Waste survey has been submitted in lieu of response by circling the appropriate response.

Yes 1

No 2

¹Use the following codes to designate well type:

- A = Wells that dispose below deepest groundwater with <10,000 mg/l of total dissolved solids
- B = Wells that dispose into a formation containing groundwater with <10,000 mg/l of total dissolved solids
- C = Wells that dispose above all groundwater
- D = Other (specify) _____

²Indicate the quantity of listed substance disposed

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 9 WORKER EXPOSURE

General Instructions:

Questions 9.03-9.25 apply only to those processes and workers involved in manufacturing or processing the listed substance. Do not include workers involved in residual waste treatment unless they are involved in this treatment process on a regular basis (i.e., exclude maintenance workers, construction workers, etc.).

☐ Mark (X) this box if you attach a continuation sheet.

PART A EMPLOYMENT AND POTENTIAL EXPOSURE PROFILE

9.01 Mark (X) the appropriate column to indicate whether your company maintains records on the following data elements for hourly and salaried workers. Specify for each data element the year in which you began maintaining records and the number of years the records for that data element are maintained. (Refer to the instructions for further explanation and an example.)

CBI

☐

| <u>Data Element</u> | <u>Data are Maintained for:</u> | | <u>Year in Which Data Collection Began</u> | <u>Number of Years Records Are Maintained</u> |
|---------------------------------------------------------------------|---------------------------------|-----------------------------|----------------------------------------------------|-------------------------------------------------------|
| | <u>Hourly Workers</u> | <u>Salaried Workers</u> | | |
| Date of hire | <u>X</u> | <u>X</u> | <u>1961</u> | <u>INDEFINITE</u> |
| Age at hire | <u>X</u> | <u>X</u> | <u>1961</u> | <u>INDEFINITE</u> |
| Work history of individual before employment at your facility | <u>NA</u> | <u>X</u> | <u>NA/1961</u> | <u>INDEFINITE</u> |
| Sex | <u>X</u> | <u>X</u> | <u>1961</u> | <u>INDEFINITE</u> |
| Race | <u>X</u> | <u>X</u> | <u>1961</u> | <u>INDEFINITE</u> |
| Job titles | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| Start date for each job title | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| End date for each job title | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| Work area industrial hygiene monitoring data | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| Personal employee monitoring data | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| Employee medical history | <u>X</u> | <u>X</u> | <u>1961</u> | <u>INDEFINITE</u> |
| Employee smoking history | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| Accident history | <u>X</u> | <u>X</u> | <u>1961</u> | <u>INDEFINITE</u> |
| Retirement date | <u>X</u> | <u>X</u> | <u>1961</u> | <u>INDEFINITE</u> |
| Termination date | <u>X</u> | <u>X</u> | <u>1961</u> | <u>INDEFINITE</u> |
| Vital status of retirees | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |
| Cause of death data | <u>NA</u> | <u>NA</u> | <u>NA</u> | <u>NA</u> |

☐ Mark (X) this box if you attach a continuation sheet.

9.02 In accordance with the instructions, complete the following table for each activity in which you engage.

CBI

☐

| a. | b. | c. | d. | e. |
|----------------------------------------|-------------------------|---------------------------------|--------------------------|-------------------------------|
| <u>Activity</u> | <u>Process Category</u> | <u>Yearly Quantity (kg)</u> | <u>Total Workers</u> | <u>Total Worker-Hours</u> |
| Manufacture of the listed substance | Enclosed | N/A | N/A | N/A |
| | Controlled Release | | | |
| | Open | | | |
| On-site use as reactant | Enclosed | | | |
| | Controlled Release | | | |
| | Open | | | |
| On-site use as nonreactant | Enclosed | | | |
| | Controlled Release | | | |
| | Open | | | |
| On-site preparation of products | Enclosed | | | |
| | Controlled Release | | | |
| | Open | 22 | 1 | 30 |

☐ Mark (X) this box if you attach a continuation sheet.

9.03 Provide a descriptive job title for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance.

CBI

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Labor Category

Descriptive Job Title

A

PL-1

B

PL-2

C

D

E

F

G

H

I

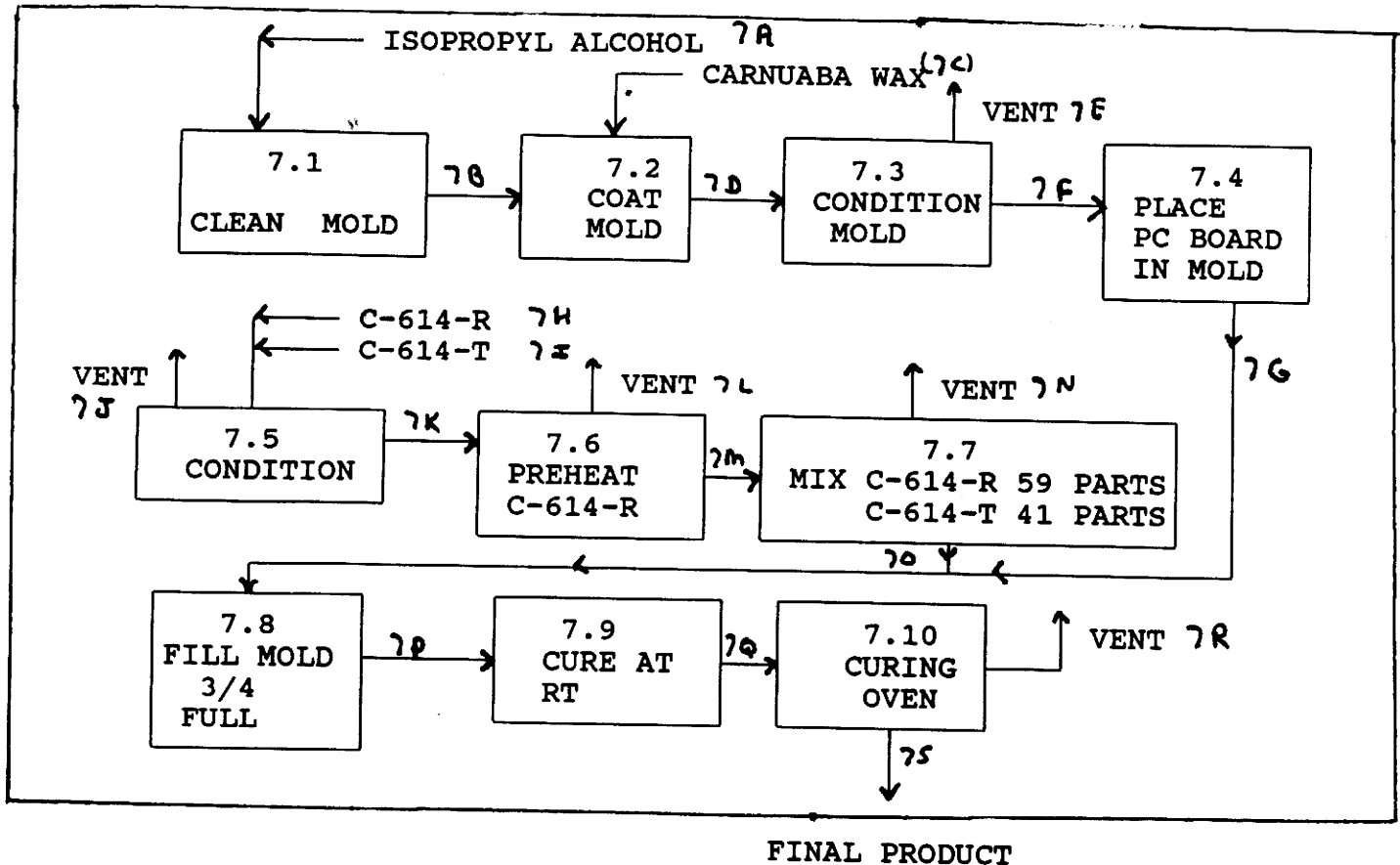
J

☐ Mark (X) this box if you attach a continuation sheet.

9.04 In accordance with the instructions, provide your process block flow diagram(s) and indicate associated work areas.

CBI

☐ Process type POTTING OF 2069694
ROTARY SWITCH



☐ Mark (X) this box if you attach a continuation sheet.

9.05 Describe the various work area(s) shown in question 9.04 that encompass workers who may potentially come in contact with or be exposed to the listed substance. Add any additional areas not shown in the process block flow diagram in question 7.01 or 7.02. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type

POTTING OF 2069694

ROTARY SWITCH

Work Area ID

Description of Work Areas and Worker Activities

1

LABORATORY HOOD AND OVEN

2

3

4

5

6

7

8

9

10

☐ Mark (X) this box if you attach a continuation sheet.

9.06 Complete the following table for each work area identified in question 9.05, and for each labor category at your facility that encompasses workers who may potentially come in contact with or be exposed to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type POTTING of 2069694 ROTARY SWITCH
 Work area 1

| Labor Category | Number of Workers Exposed | Mode of Exposure (e.g., direct skin contact) | Physical State of Listed Substance ¹ | Average Length of Exposure Per Day ² | Number of Days per Year Exposed |
|----------------|---------------------------|----------------------------------------------|-------------------------------------------------|-------------------------------------------------|---------------------------------|
| <u>A, B</u> | <u>1</u> | <u>N/A</u> | <u>OL</u> | <u>UNKNOWN</u> | <u>UNKNOWN</u> |
| | | | | | |
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¹Use the following codes to designate the physical state of the listed substance at the point of exposure:

GC = Gas (condensable at ambient temperature and pressure)
 GU = Gas (uncondensable at ambient temperature and pressure; includes fumes, vapors, etc.)
 SO = Solid

SY = Sludge or slurry
 AL = Aqueous liquid
 OL = Organic liquid
 IL = Immiscible liquid (specify phases, e.g., 90% water, 10% toluene)

²Use the following codes to designate average length of exposure per day:

A = 15 minutes or less
 B = Greater than 15 minutes, but not exceeding 1 hour
 C = Greater than one hour, but not exceeding 2 hours

D = Greater than 2 hours, but not exceeding 4 hours
 E = Greater than 4 hours, but not exceeding 8 hours
 F = Greater than 8 hours

☐ Mark (X) this box if you attach a continuation sheet.

9.07 For each labor category represented in question 9.06, indicate the 8-hour Time Weighted Average (TWA) exposure levels and the 15-minute peak exposure levels. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type POTTING OF 2069694 ROTARY SWITCH

Work area 1

| <u>Labor Category</u> | <u>8-hour TWA Exposure Level (ppm, mg/m³, other-specify)</u> | <u>15-Minute Peak Exposure Level (ppm, mg/m³, other-specify)</u> |
|-----------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|-----------------------|-----------------------------------------------------------------------------|---------------------------------------------------------------------------------|

| | | |
|---------------------------------------------------------------|--|--|
| <u>NO MONITORING RESULTS AVAILABLE - OPERATION NOT SCHED.</u> | | |
|---------------------------------------------------------------|--|--|

| | | |
|-------|-------|-------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

☐ Mark (X) this box if you attach a continuation sheet.

PART B WORK PLACE MONITORING PROGRAM

9.08 If you monitor worker exposure to the listed substance, complete the following table.

CBI

☐

| <u>Sample/Test</u> | <u>Work Area ID</u> | <u>Testing Frequency (per year)</u> | <u>Number of Samples (per test)</u> | <u>Who Samples¹</u> | <u>Analyzed In-House (Y/N)</u> | <u>Number of Years Records Maintained</u> |
|-------------------------|---------------------|-------------------------------------|-------------------------------------|--------------------------------|--------------------------------|-------------------------------------------|
| Personal breathing zone | N/A | N/A | N/A | N/A | N/A | N/A |
| General work area (air) | | | | | | |
| Wipe samples | | | | | | |
| Adhesive patches | | | | | | |
| Blood samples | | | | | | |
| Urine samples | | | | | | |
| Respiratory samples | | | | | | |
| Allergy tests | | | | | | |
| Other (specify) | | | | | | |
| Other (specify) | | | | | | |
| Other (specify) | | | | | | |

¹Use the following codes to designate who takes the monitoring samples:

A = Plant industrial hygienist

B = Insurance carrier

C = OSHA consultant

D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

9.09 For each sample type identified in question 9.08, describe the type of sampling and analytical methodology used for each type of sample.

| Sample Type | Sampling and Analytical Methodology |
|-------------|-------------------------------------|
| N/A | N/A |
| | |
| | |
| | |
| | |

9.10 If you conduct personal and/or ambient air monitoring for the listed substance, specify the following information for each equipment type used.

| Equipment Type ¹ | Detection Limit ² | Manufacturer | Averaging Time (hr) | Model Number |
|-----------------------------|------------------------------|--------------|---------------------|--------------|
| N/A | N/A | N/A | N/A | N/A |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

¹Use the following codes to designate personal air monitoring equipment types:

- A = Passive dosimeter
- B = Detector tube
- C = Charcoal filtration tube with pump
- D = Other (specify) _____

Use the following codes to designate ambient air monitoring equipment types:

- E = Stationary monitors located within work area
- F = Stationary monitors located within facility
- G = Stationary monitors located at plant boundary
- H = Mobile monitoring equipment (specify) _____
- I = Other (specify) _____

²Use the following codes to designate detection limit units:

- A = ppm
- B = Fibers/cubic centimeter (f/cc)
- C = Micrograms/cubic meter (μm^3)

☐ Mark (X) this box if you attach a continuation sheet.

9.11 If you conduct routine medical tests for monitoring the health effects of exposure to the listed substance, specify the type and frequency of the tests.

CBI

☐

Test Description

Frequency
(weekly, monthly, yearly, etc.)

N/A

↓

N/A

↓

☐ Mark (X) this box if you attach a continuation sheet.

PART C ENGINEERING CONTROLS

9.12 Describe the engineering controls that you use to reduce or eliminate worker exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type POTTING of 2061694 ROTARY SWITCH
 Work area 1

| <u>Engineering Controls</u> | <u>Used (Y/N)</u> | <u>Year Installed</u> | <u>Upgraded (Y/N)</u> | <u>Year Upgraded</u> |
|-------------------------------------------|-----------------------|---------------------------|---------------------------|--------------------------|
| Ventilation: | | | | |
| Local exhaust | <u>Y</u> | <u>1986</u> | <u>N</u> | <u>N/A</u> |
| General dilution | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> |
| Other (specify) | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| Vessel emission controls | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| Mechanical loading or packaging equipment | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| Other (specify) | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| | <u> </u> | <u> </u> | <u> </u> | <u> </u> |

☐ Mark (X) this box if you attach a continuation sheet.

9.13 Describe all equipment or process modifications you have made within the 3 years prior to the reporting year that have resulted in a reduction of worker exposure to the listed substance. For each equipment or process modification described, state the percentage reduction in exposure that resulted. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type Potting of 2069694 Rotary Switch
 Work area 1

| Equipment or Process Modification | Reduction in Worker Exposure Per Year (%) |
|-----------------------------------|-------------------------------------------|
| <u>N/A</u> | <u>N/A</u> |
| ↓ | ↓ |
| | |
| | |
| | |

☐ Mark (X) this box if you attach a continuation sheet.

PART D PERSONAL PROTECTIVE AND SAFETY EQUIPMENT

9.14 Describe the personal protective and safety equipment that your workers wear or use in each work area in order to reduce or eliminate their exposure to the listed substance. Photocopy this question and complete it separately for each process type and work area.

CBI

☐ Process type POTTING OF 2069694 ROTARY SWITCH

Work area 1

| <u>Equipment Types</u> | <u>Wear or Use (Y/N)</u> |
|---------------------------|--------------------------|
| Respirators | <u>N</u> |
| Safety goggles/glasses | <u>Y</u> |
| Face shields | <u>N</u> |
| Coveralls | <u>N</u> |
| Bib aprons | <u>N</u> |
| Chemical-resistant gloves | <u>N</u> |
| Other (specify) | |
| <u>N/A</u> | <u>N/A</u> |
| <u>↓</u> | <u>↓</u> |

☐ Mark (X) this box if you attach a continuation sheet.

9.15 If workers use respirators when working with the listed substance, specify for each process type, the work areas where the respirators are used, the type of respirators used, the average usage, whether or not the respirators were fit tested, and the type and frequency of the fit tests. Photocopy this question and complete it separately for each process type.

CBI

☐ Process type Rotting of 2069694 Rotary Switch

| Work Area | Respirator Type | Average Usage ¹ | Fit Tested (Y/N) | Type of Fit Test ² | Frequency of Fit Tests (per year) |
|------------|-----------------|----------------------------|------------------|-------------------------------|-----------------------------------|
| <u>N/A</u> | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> |
| <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |

¹Use the following codes to designate average usage:

A = Daily
 B = Weekly
 C = Monthly
 D = Once a year
 E = Other (specify) _____

²Use the following codes to designate the type of fit test:

QL = Qualitative
 QT = Quantitative

☐ Mark (X) this box if you attach a continuation sheet.

- 9.16 Respirator Maintenance Program -- For each type of respirator used when working with the listed substance, specify the frequency of the maintenance activity, and the person who performs the maintenance activity. Photocopy this question and complete it separately for each respirator type.

Respirator type _____

| <u>Respirator Maintenance Activity</u> | <u>Frequency¹</u> | <u>Person Performing Activity²</u> |
|--------------------------------------------|------------------------------|---------------------------------------------------|
| Cleaning | _____ | _____ |
| Inspection | _____ | _____ |
| Replacement | | |
| Cartridge/Canister | _____ | _____ |
| Respirator unit | _____ | _____ |

¹Use the following codes to designate the frequency of maintenance activity:

- A = After each use
B = Weekly
C = Other (specify) _____

²Use the following codes to designate who performs the maintenance activity:

- A = Plant industrial hygienist
B = Supervisor
C = Foreman
D = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

9.17 Respirator Training Program -- Describe your respirator training and re-training programs for each type of respirator used when working with the listed substance. Photocopy this question and complete it separately for each respirator type.

a.

Respirator type

| Type of Training ¹ | Number of Workers Trained | Location of Training ² | Length of Training (hrs) | Person Performing Training ³ | Frequency ⁴ |
|-------------------------------|---------------------------|-----------------------------------|--------------------------|-----------------------------------------|------------------------|
| _____ | _____ | _____ | _____ | _____ | _____ |

b.

Respirator type

| Type of Re-training ¹ | Number of Workers Re-trained | Location of Re-Training ² | Length of Re-Training (hrs) | Person Performing Re-Training ³ | Frequency ⁴ |
|----------------------------------|------------------------------|--------------------------------------|-----------------------------|--------------------------------------------|------------------------|
| _____ | _____ | _____ | _____ | _____ | _____ |

¹Use the following codes to designate the type of training or re-training:

E = Emergency
R = Routine

²Use the following codes to designate the location of training or re-training:

A = Outside plant instruction
B = In-house classroom instruction
C = On-the-job
D = Other (specify) _____

³Use the following codes to designate the person who performs the training or re-training:

A = Plant industrial hygienist
B = Supervisor
C = Foreman
D = Other (specify) _____

⁴Use the following codes to designate the frequency of respirator training or re-training:

A = Monthly
B = Fixed monthly
C = Other (specify) _____

☐ Mark (X) this box if you attach a continuation sheet.

9.18 For each type of personal protective clothing and safety equipment used when working with the listed substance, indicate whether you have conducted a permeation test on the clothing or equipment for the listed substance.

| <u>Clothing and Equipment</u> | <u>Permeation Tests Conducted</u> <u>(Y/N)</u> |
|-------------------------------|---------------------------------------------------|
| Coveralls | |
| Bib apron | |
| Gloves | |
| Other (specify) | |
| | |
| | |
| | |

☐ Mark (X) this box if you attach a continuation sheet.

PART E WORK PRACTICES

- 9.19 Describe all of the work practices and administrative controls used to reduce or eliminate worker exposure to the listed substance (e.g., restrict entrance only to authorized workers, mark areas with warning signs, insure worker detection and monitoring practices, provide worker training programs, etc.). Photocopy this question and complete it separately for each process type and work area.

CBI

☐

Process type POTTING OF 2069694 ROTARY

Work area SWITCH 1

WORK INSTRUCTIONS

AT&T HAZARD CODE LABELS.

- 9.20 Indicate (X) how often you perform each housekeeping task used to clean up routine leaks or spills of the listed substance. Photocopy this question and complete it separately for each process type and work area.

Process type N/A

Work area

| Housekeeping Tasks | Less Than Once Per Day | 1-2 Times Per Day | 3-4 Times Per Day | More Than 4 Times Per Day |
|--------------------------|---------------------------|----------------------|----------------------|------------------------------|
| Sweeping | N/A | N/A | N/A | N/A |
| Vacuuming | | | | |
| Water flushing of floors | | | | |
| Other (specify) | | | | |

☐ Mark (X) this box if you attach a continuation sheet.

9.21 Do you have a written medical action plan for responding to routine or emergency exposure to the listed substance?

Routine exposure

Yes 1

No 2

Emergency exposure

Yes 1

No 2

If yes, where are copies of the plan maintained?

Routine exposure: _____

Emergency exposure: _____

9.22 Do you have a written leak and spill cleanup plan that addresses the listed substance? Circle the appropriate response.

Yes 1

No (2)

If yes, where are copies of the plan maintained? _____

Has this plan been coordinated with state or local government response organizations? Circle the appropriate response.

Yes 1

No (2)

9.23 Who is responsible for monitoring worker safety at your facility? Circle the appropriate response.

Plant safety specialist 1

Insurance carrier 2

OSHA consultant 3

Other (specify) _____ 4

☐ Mark (X) this box if you attach a continuation sheet.

9.24 Who is responsible for safety and health training at your facility? Circle the appropriate response.

Plant safety specialist 1
Insurance carrier 2
OSHA consultant 3
Other (specify) _____ 4

9.25 Who is responsible for the medical program at your facility? Circle the appropriate response.

Plant physician 1
Consulting physician 2
Plant nurse 3
Consulting nurse 4
Other (specify) _____ 5

☐ Mark (X) this box if you attach a continuation sheet.

SECTION 10 ENVIRONMENTAL RELEASE

General Instructions:

Complete Part E (questions 10.23-10.35) for each non-routine release involving the listed substance that occurred during the reporting year. Report on all releases that are equal to or greater than the listed substance's reportable quantity value, RQ, unless the release is federally permitted as defined in 42 U.S.C. 9601, or is specifically excluded under the definition of release as defined in 40 CFR 302.3(22). Reportable quantities are codified in 40 CFR Part 302. If the listed substance is not a hazardous substance under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and, thus, does not have an RQ, then report releases that exceed 2,270 kg. If such a substance however, is designated as a CERCLA hazardous substance, then report those releases that are equal to or greater than the RQ. The facility may have answered these questions or similar questions under the Agency's Accidental Release Information Program and may already have this information readily available. Assign a number to each release and use this number throughout this part to identify the release. Releases over more than a 24-hour period are not single releases, i.e., the release of a chemical substance equal to or greater than an RQ must be reported as a separate release for each 24-hour period the release exceeds the RQ.

For questions 10.25-10.35, answer the questions for each release identified in question 10.23. Photocopy these questions and complete them separately for each release.

PART A GENERAL INFORMATION

10.01 Where is your facility located? Circle all appropriate responses.

CBI

- ☐ Industrial area ①
- Urban area 2
- Residential area ③
- Agricultural area 4
- Rural area 5
- Adjacent to a park or a recreational area 6
- Within 1 mile of a navigable waterway 7
- Within 1 mile of a school, university, hospital, or nursing home facility ⑧
- Within 1 mile of a non-navigable waterway ⑨
- Other (specify) _____ 10

☐ Mark (X) this box if you attach a continuation sheet.

10.02 Specify the exact location of your facility (from central point where process unit is located) in terms of latitude and longitude or Universal Transverse Mercader (UTM) coordinates.

Latitude 36 ° 05 ' 12 "

Longitude 79 ° 25 ' 00 "

UTM coordinates Zone _____, Northing _____, Easting _____

10.03 If you monitor meteorological conditions in the vicinity of your facility, provide the following information.

Average annual precipitation inches/year

Predominant wind direction

10.04 Indicate the depth to groundwater below your facility. UNKNOWN,

Depth to groundwater meters

10.05 For each on-site activity listed, indicate (Y/N/NA) all routine releases of the listed substance to the environment. (Refer to the instructions for a definition of CBI Y, N, and NA.)

☐

On-Site Activity

Environmental Release

Manufacturing

Air

Water

Land

N/A

N/A

N/A

Importing

↓

Processing

YES

Otherwise used

N/A

Product or residual storage

Disposal

Transport

↓

↓

↓

☐ Mark (X) this box if you attach a continuation sheet.

10.06 Provide the following information for the listed substance and specify the level of precision for each item. (Refer to the instructions for further explanation and an example.)

CBI

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Quantity discharged to the air kg/yr \pm ____ %
Quantity discharged in wastewaters kg/yr \pm ____ %
Quantity managed as other waste in on-site
treatment, storage, or disposal units kg/yr \pm ____ %
Quantity managed as other waste in off-site
treatment, storage, or disposal units kg/yr \pm ____ %

☐ Mark (X) this box if you attach a continuation sheet.

10.07 Complete the following table for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type.

CBI

☐

Process type _____

| Process Stream ID Code | Media Affected ¹ | Average Amount of Listed Substance Released ² | Number of Batches/Year | Days of Operation/Year |
|------------------------|-----------------------------|----------------------------------------------------------|------------------------|------------------------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

¹Use the following codes to designate the media affected:

- A = Air
- B = Land
- C = Groundwater
- D = POTW
- E = Navigable waterway
- F = Non-navigable waterway
- G = Other (specify) _____

²Specify the average amount of listed substance released to the environment and use the following codes to designate the units used to measure the release:

- A = kg/day
- B = kg/batch

☐ Mark (X) this box if you attach a continuation sheet.

10.08 Describe the control technologies used to minimize release of the listed substance for each process stream containing the listed substance as identified in your process block or residual treatment block flow diagram(s). Photocopy this question and complete it separately for each process type. *Unknown*

CBI

☐

Process type *Potting of 2069694 Rotary Switch*

| <u>Stream ID Code</u> | <u>Control Technology</u> | <u>Percent Efficiency</u> |
|-----------------------|---------------------------|---------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

☐ Mark (X) this box if you attach a continuation sheet.

PART B RELEASE TO AIR

10.09 Point Source Emissions -- Identify each emission point source containing the listed substance in terms of a Stream ID Code as identified in your process block or residual treatment block flow diagram(s), and provide a description of each point source. Do not include raw material and product storage vents, or fugitive emission sources (e.g., equipment leaks). Photocopy this question and complete it separately for each process type.

CBI

☐

Process type

POTTING OF 2069694

ROTARY SWITCH

Point Source
ID Code

Description of Emission Point Source

7E
7J
7L
7N
7R

VENTILATION TO OUTSIDE (504018)
" " " "
" " " "
" " " "
" " " "

☐ Mark (X) this box if you attach a continuation sheet.

☐ Mark (X) this box if you attach a continuation sheet.

10.10 Emission Characteristics - - Characterize the emissions for each Point Source ID Code identified in question 10.09 by completing the following table.

CHT

☐

MINIMAL - UNKNOWN (FOR ALL Point Sources in 10.09)

| Point Source ID Code | Physical State | Average Emissions (kg/day) | Frequency ² (days/yr) | Duration ³ (min/day) | Average Emission Factor ⁴ | Maximum Emission Rate (kg/min) | Maximum Emission Rate Frequency (events/yr) | Maximum Emission Rate Duration (min/event) |
|-------------------------------|-------------------|----------------------------------|-------------------------------------|------------------------------------|--------------------------------------------|-----------------------------------------|---------------------------------------------------------|--------------------------------------------------------|
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ | _____ |

¹Use the following codes to designate physical state at the point of release:

G = Gas; V = Vapor; P = Particulate; A = Aerosol; O = Other (specify) _____

²Frequency of emission at any level of emission

³Duration of emission at any level of emission

⁴Average Emission Factor — Provide estimated (\pm 25 percent) emission factor (kg of emission per kg of production of listed substance)

10.11 Stack Parameters -- Identify the stack parameters for each Point Source ID Code identified in question 10.09 by completing the following table.

CBI

☐

| Point Source ID Code | Stack Height(m) | Stack Inner Diameter (at outlet) (m) | Exhaust Temperature (°C) | Emission Exit Velocity (m/sec) | Building Height(m) ¹ | Building Width(m) ² | Vent, Type ³ |
|-------------------------------|--------------------|--------------------------------------------------|--------------------------------|-----------------------------------------|------------------------------------|-----------------------------------|----------------------------|
| 7E | UNKNOWN | | | | | | ✓ |
| 7J | " | | | | | | ✓ |
| 7L | " | | | | | | ✓ |
| 7N | " | | | | | | ✓ |
| 7R | " | | | | | | ✓ |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

¹Height of attached or adjacent building

²Width of attached or adjacent building

³Use the following codes to designate vent type:

H = Horizontal

V = Vertical

☐ Mark (X) this box if you attach a continuation sheet.

- 10.12 If the listed substance is emitted in particulate form, indicate the particle size distribution for each Point Source ID Code identified in question 10.09.
Photocopy this question and complete it separately for each emission point source.

CBI

N/A - NOT A PARTICULATE

☐

Point source ID code

Size Range (microns)

Mass Fraction (% ± % precision)

< 1

≥ 1 to < 10

≥ 10 to < 30

≥ 30 to < 50

≥ 50 to < 100

≥ 100 to < 500

≥ 500

Total = 100%

☐ Mark (X) this box if you attach a continuation sheet.

PART C FUGITIVE EMISSIONS

10.13 Equipment Leaks -- Complete the following table by providing the number of equipment types listed which are exposed to the listed substance and which are in service according to the specified weight percent of the listed substance passing through the component. Do this for each process type identified in your process block or residual treatment block flow diagram(s). Do not include equipment types that are not exposed to the listed substance. If this is a batch or intermittently operated process, give an overall percentage of time per year that the process type is exposed to the listed substance. Photocopy this question and complete it separately for each process type.

CBI

☐

Process type

N/A

Percentage of time per year that the listed substance is exposed to this process type %

| Equipment Type | Number of Components in Service by Weight Percent of Listed Substance in Process Stream | | | | | Greater than 99% |
|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|-------|--------|--------|--------|------------------|
| | Less than 5% | 5-10% | 11-25% | 26-75% | 76-99% | |
| Pump seals ¹ | | | | | | |
| Packed | N/A | N/A | N/A | N/A | N/A | N/A |
| Mechanical | | | | | | |
| Double mechanical ² | | | | | | |
| Compressor seals ¹ | | | | | | |
| Flanges | | | | | | |
| Valves | | | | | | |
| Gas ³ | | | | | | |
| Liquid | | | | | | |
| Pressure relief devices ⁴ (Gas or vapor only) | | | | | | |
| Sample connections | | | | | | |
| Gas | | | | | | |
| Liquid | | | | | | |
| Open-ended lines ⁵ (e.g., purge, vent) | | | | | | |
| Gas | | | | | | |
| Liquid | | | | | | |

¹List the number of pump and compressor seals, rather than the number of pumps or compressors

10.13 continued on next page

☐

Mark (X) this box if you attach a continuation sheet.

10.13 (continued)

²If double mechanical seals are operated with the barrier (B) fluid at a pressure greater than the pump stuffing box pressure and/or equipped with a sensor (S) that will detect failure of the seal system, the barrier fluid system, or both, indicate with a "B" and/or an "S", respectively

³Conditions existing in the valve during normal operation

Report all pressure relief devices in service, including those equipped with control devices

⁵Lines closed during normal operation that would be used during maintenance operations

10.14 Pressure Relief Devices with Controls -- Complete the following table for those pressure relief devices identified in 10.13 to indicate which pressure relief devices in service are controlled. If a pressure relief device is not controlled, enter "None" under column c. *N/A*

[]

[illegible]

¹Refer to the table in question 10.13 and record the percent range given under the heading entitled "Number of Components in Service by Weight Percent of Listed Substance" (e.g., <5%, 5-10%, 11-25%, etc.)

²The EPA assigns a control efficiency of 100 percent for equipment leaks controlled with rupture discs under normal operating conditions. The EPA assigns a control efficiency of 98 percent for emissions routed to a flare under normal operating conditions

☐ Mark (X) this box if you attach a continuation sheet.

10.15 Equipment Leak Detection -- If a formal leak detection and repair program is in place, complete the following table regarding those leak detection and repair procedures. Photocopy this question and complete it separately for each process type.

CBI

NO FORMAL OR INFORMAL PROGRAM

☐

Process type

| Equipment Type | Leak Detection | Detection Device ¹ | Frequency of Leak Detection (per year) | Repairs Initiated (days after detection) | Repairs Completed (days after initiated) |
|---------------------------------------------|--------------------------------------------------------------------------------|-------------------------------|----------------------------------------|------------------------------------------|------------------------------------------|
| | Concentration (ppm or mg/m ³) Measured at _____ Inches from Source | | | | |
| Pump seals | | | | | |
| Packed | N/A | N/A | N/A | N/A | N/A |
| Mechanical | | | | | |
| Double mechanical | | | | | |
| Compressor seals | | | | | |
| Flanges | | | | | |
| Valves | | | | | |
| Gas | | | | | |
| Liquid | | | | | |
| Pressure relief devices (gas or vapor only) | | | | | |
| Sample connections | | | | | |
| Gas | | | | | |
| Liquid | | | | | |
| Open-ended lines | | | | | |
| Gas | | | | | |
| Liquid | | | | | |

¹Use the following codes to designate detection device:

POVA = Portable organic vapor analyzer

FPM = Fixed point monitoring

0 = Other (specify) _____

☐

Mark (X) this box if you attach a continuation sheet.

☐ Mark (X) this box if you attach a continuation sheet.

10.16 Raw Material, Intermediate and Product Storage Emissions - - Complete the following table by providing the information on each liquid raw material, intermediate, and product storage vessel containing the listed substance as identified in your process block or residual treatment block flow diagram(s). *N/A - Stored in manufacturer's supplied package.*

☒ CBI

☐

| Vessel Type ¹ | Floating Roof Seals ² | Composition of Stored Materials ³ | Throughput (liters per year) | Vessel Filling Rate (gpm) | Vessel Filling Duration (min) | Vessel Inner Diameter (m) | Vessel Height (m) | Vessel Volume (l) | Vessel Emission Controls ⁴ | Design Flow Rate ⁵ | Vent Diameter (cm) | Control Efficiency (%) | Basis for Estimate ⁶ |
|--------------------------|----------------------------------|----------------------------------------------|------------------------------|---------------------------|-------------------------------|---------------------------|-------------------|-------------------|---------------------------------------|-------------------------------|--------------------|------------------------|---------------------------------|
| N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | |

¹Use the following codes to designate vessel type:

- F = Fixed roof
- CIF = Contact internal floating roof
- NCIF = Noncontact internal floating roof
- EFR = External floating roof
- P = Pressure vessel (indicate pressure rating)
- H = Horizontal
- U = Underground

²Use the following codes to designate floating roof seals:

- MS1 = Mechanical shoe, primary
- MS2 = Shoe-mounted secondary
- MS2R = Rim-mounted, secondary
- LM1 = Liquid-mounted resilient filled seal, primary
- LM2 = Rim-mounted shield
- LMW = Weather shield
- VM1 = Vapor mounted resilient filled seal, primary
- VM2 = Rim-mounted secondary
- VMW = Weather shield

³Indicate weight percent of the listed substance. Include the total volatile organic content in parenthesis

⁴Other than floating roofs

⁵Gas/vapor flow rate the emission control device was designed to handle (specify flow rate units)

⁶Use the following codes to designate basis for estimate of control efficiency:

- C = Calculations
- S = Sampling

PART D RELEASE TO WATER

- 10.17 National Pollutant Discharge Elimination System (NPDES) Discharges -- Complete the following information for each body of water NPDES discharges are discharged into. If discharges are to more than one body of water, photocopy this question and complete it separately for each discharge.

CBI

☐

Discharge source (stream ID code) _____

Is discharge to a moving or standing body of water? Circle the appropriate response.

Moving body of water 1

Standing body of water 2

Estimated average base flow (moving) _____ 1/day

Estimated average volume (standing) _____ 1

Average volume of discharge from facility _____ 1/day

_____ days/year

Maximum volume of discharge from facility _____ 1/day

_____ days/year

Average concentration of listed substance in discharge _____ mg/l or ppm

Maximum concentration of listed substance in discharge _____ mg/l or ppm

-
- 10.18 Publicly Owned Treatment Works (POTW) -- Complete the following information for discharges containing the listed substance which are discharged to a POTW from your facility.

CBI

☐

Discharge source (stream ID code) _____

Average volume of discharge from facility _____ 1/day

_____ days/year

Maximum volume of discharge from facility _____ 1/day

_____ days/year

Average concentration of listed substance in discharge _____ mg/l or ppm

Maximum concentration of listed substance in discharge _____ mg/l or ppm

☐ Mark (X) this box if you attach a continuation sheet.

10.19 Nonpoint Sources -- Complete the following information for each nonpoint discharge source. Examples of nonpoint sources include stormwater runoff, waste pile runoff, and runoff from product or raw material storage areas or other sources that contain the listed substance and may be discharged to surface water. Exclude NPDES or POTW discharges. If discharges are to more than one body of water, photocopy this question and complete it separately for each discharge.

CBI

☐ Discharge source (stream ID code)

Is discharge to a moving or standing body of water? Circle the appropriate response.

Moving body of water 1

Standing body of water 2

Estimated average base flow (moving) 1/day

Estimated average volume (standing) 1

Average volume of discharge from facility 1/day

..... days/year

Maximum volume of discharge from facility 1/day

..... days/year

Average concentration of listed substance in discharge mg/l or ppm

Maximum concentration of listed substance in discharge mg/l or ppm

☐ Mark (X) this box if you attach a continuation sheet.

- 10.20 Releases to Soils -- Complete the following information for up to three random soil core samples that were taken and analyzed for the listed substance during the reporting year. Report the concentrations of the listed substance determined by soil core monitoring studies/tests. Specify the distance from the facility that soil cores were taken, and indicate the soil type and sample depth of the soil cores. (Refer to the glossary for definitions of soil textures given in footnote 2.)

CBI

☐

| <u>Sample</u> | <u>Concentration (ug/kg) of Listed Substance (± % precision)</u> | <u>Distance from Plant (m)¹</u> | <u>Soil Texture²</u> | <u>Sample Depth (cm)</u> |
|---------------|---------------------------------------------------------------------------|------------------------------------------------|---------------------------------|------------------------------|
| <u>1</u> | _____ | _____ | _____ | _____ |
| <u>2</u> | _____ | _____ | _____ | _____ |
| <u>3</u> | _____ | _____ | _____ | _____ |

¹Use the following code to designate if the sample was taken within the facility's boundary:

OS = On-site

²Use the following codes to designate soil texture:

| | |
|----------------|---------------------|
| A = Sand | G = Sandy clay loam |
| B = Loamy sand | H = Clay loam |
| C = Sandy loam | I = Silty clay loam |
| D = Loam | J = Sandy clay |
| E = Silty loam | K = Silty clay |
| F = Silt | L = Clay |

- 10.21 Releases to Groundwater -- Complete the following information for up to three random samples of groundwater from monitoring wells during the reporting year that were analyzed for the listed substance. The average and maximum concentration refers to the listed substance.

CBI

☐

| <u>Sample</u> | <u>Distance from Plant (m)¹</u> | <u>Well Depth (m)</u> | <u>Average Concentration (mg/l) (± % precision)</u> | <u>Maximum Concentration (mg/l) (± % precision)</u> |
|---------------|----------------------------------------------------|-------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|
| <u>1</u> | _____ | _____ | _____ | _____ |
| <u>2</u> | _____ | _____ | _____ | _____ |
| <u>3</u> | _____ | _____ | _____ | _____ |

¹Use the following code to designate if the sample was taken within the facility's boundary:

OS = On-site

☐ Mark (X) this box if you attach a continuation sheet.

10.22 Releases to Drinking Water -- Complete the following table for up to three samples from drinking water wells monitored during the reporting year. The average and maximum concentration refers to the listed substance.

CBI

☐

| <u>Well</u> | <u>Well Depth (m)</u> | <u>Distance from Plant (m)¹</u> | <u>Average Concentration (mg/l) (± % precision)</u> | <u>Maximum Concentration (mg/l) (± % precision)</u> |
|-------------|-----------------------------|----------------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------|
| <u>1</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u>2</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u>3</u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |

¹Use the following code to designate if the sample was taken within the facility's boundary:

OS = On-site

☐ Mark (X) this box if you attach a continuation sheet.

PART E NON-ROUTINE RELEASES

10.23 Indicate the date and time when the release occurred and when the release ceased or was stopped. If there were more than six releases, attach a continuation sheet and list all releases. ~~No NON-ROUTINE RELEASES~~

| <u>Release</u> | <u>Date Started</u> | <u>Time (am/pm)</u> | <u>Date Stopped</u> | <u>Time (am/pm)</u> |
|----------------|---------------------|---------------------|---------------------|---------------------|
| <u>1</u> | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> | <u>N/A</u> |
| <u>2</u> | <u></u> | <u></u> | <u></u> | <u></u> |
| <u>3</u> | <u></u> | <u></u> | <u></u> | <u></u> |
| <u>4</u> | <u></u> | <u></u> | <u></u> | <u></u> |
| <u>5</u> | <u></u> | <u></u> | <u></u> | <u></u> |
| <u>6</u> | <u></u> | <u></u> | <u></u> | <u></u> |

10.24 Specify the weather conditions at the time of each release.

| <u>Release</u> | <u>Wind Speed (km/hr)</u> | <u>Wind Direction</u> | <u>Humidity (%)</u> | <u>Temperature (°C)</u> | <u>Precipitation (Y/N)</u> |
|----------------|---------------------------|-----------------------|---------------------|-------------------------|----------------------------|
| <u>1</u> | <u></u> | <u></u> | <u></u> | <u></u> | <u></u> |
| <u>2</u> | <u></u> | <u></u> | <u></u> | <u></u> | <u></u> |
| <u>3</u> | <u></u> | <u></u> | <u></u> | <u></u> | <u></u> |
| <u>4</u> | <u></u> | <u></u> | <u></u> | <u></u> | <u></u> |
| <u>5</u> | <u></u> | <u></u> | <u></u> | <u></u> | <u></u> |
| <u>6</u> | <u></u> | <u></u> | <u></u> | <u></u> | <u></u> |

☐ Mark (X) this box if you attach a continuation sheet.

10.25 Complete the following information for each media into which the listed substance was released. Any volatile substance that was released to land, but that was expected to volatilize, should be listed as a release to air.

Release No.

| <u>Media</u> | <u>Quantity (kg)</u> | <u>Method of Release</u> | <u>Migration Beyond Boundaries (Y/N)</u> | <u>Quantity Migrated (kg)</u> |
|---------------|--------------------------|--------------------------|------------------------------------------------------|---------------------------------------|
| Land | | | | |
| Air | | | | |
| Groundwater | | | | |
| Surface water | | | | |

10.26 Specify the physical state and concentration of the listed substance at the time and point of release.

Release No.

Point of release

Physical state

Concentration (%)

☐ Mark (X) this box if you attach a continuation sheet.

10.27 Circle all appropriate responses relating to the cause and the effects of the release.

Release No.

Cause of Release

Equipment failure 1
Operator error 2
Bypass condition 3
Upset condition 4
Fire 5
Unknown 6
Other (specify) 7

Results of Release

Spill 1
Vapor release 2
Explosion 3
Fire 4
Other (specify) 5

☐ Mark (X) this box if you attach a continuation sheet.

10.28 Specify which authorities were notified of the release.

Release No.

a. Federal

[illegible]

Office

[illegible][illegible]

City

[]
State

Telephone Number [] [] [] - [] [] [] - [] [] [] []

Date Notified
Mo. Day Year

Time Notified [] [] [] [] am/pm

b. State

Agency

Office

[illegible][illegible]

City

[]
State

Telephone Number () () () - () () () - () () ()

Date Notified
Mo. Day Year

Time Notified [] [] [] [] am/pm

10.28 continued below

☐ Mark (X) this box if you attach a continuation sheet.

10.28 (continued)

c. Local

Agency

Office

Contact Person

Address
Street

City

State

Telephone Number --

Date Notified
Mo. Day Year

Time Notified am/pm

10.29 For each of the proximities listed below, indicate whether the population living within that proximity was notified of, or evacuated because of the release. Specify who notified the population, the number of people evacuated, if any, and the date and time of day the evacuation began.

Release No.

| Proximity to the Release | Notified of Release (Y/N) | Notifying Person | Notifying Person's Telephone Number | Area Evacuated (Y/N) | Number of Persons Evacuated | Date and Time of Day Evacuation Began |
|-----------------------------|------------------------------------|---------------------|-------------------------------------------|----------------------------|-----------------------------------|------------------------------------------------|
| 1/4 mile | | | | | | |
| 1/2 mile | | | | | | |
| 1 mile | | | | | | |
| Other (specify) | | | | | | |

☐ Mark (X) this box if you attach a continuation sheet.

10.30 Specify the number of personal injuries or casualties resulting from the release.

Release No.

Number of injuries to facility employees _____

Number of injuries to general population _____

Number of deaths to facility employees _____

Number of deaths to general population _____

10.31 Indicate who conducted cleanup activities, and the dates over which the cleanup was performed.

Release No.

Name

[illegible]

City

State Zip

Telephone Number () () () - () () () - () () () ()

Date Cleanup Initiated
Mo. Year

Date Cleanup Completed (or expected)
Mo. Year

10.32 Briefly describe the release prevention practices and policies (backup systems, containment systems, training programs, etc.) in place at the facility at the time the release occurred.

Release No.

☐ Mark (X) this box if you attach a continuation sheet.

10.33 Indicate which of the prevention practices and policies listed in question 10.32 were ineffective in preventing the release from reaching the environment.

Release No.

.....

.....

.....

.....

10.34 Describe all repairs and/or preventive measures (management practices, operational changes, etc.) made to equipment or operations as a result of the release.

Release No.

.....

.....

.....

.....

10.35 Describe additional preventive measures that will be taken to minimize the possibilities of recurrence.

Release No.

.....

.....

.....

.....

☐ Mark (X) this box if you attach a continuation sheet.

APPENDIX I: List of Continuation Sheets

Attach continuation sheets for sections of this form and optional information after this page. In column 1, clearly identify the continuation sheet by listing the question number to which it relates. In column 2, enter the inclusive page numbers of the continuation sheet for each question number.

Question Number
(1)

Continuation
Sheet
Page Numbers
(2)

4.02- Tradename Supplier MSDS

Stepan Co.: Page 1-Page 5

☐ Mark (X) this box if you attach a continuation sheet.

APPENDIX II: Substantiation Form and Instructions
to Accompany Claims of Confidentiality Under the
Comprehensive Assessment Information Rule (CAIR)

If you assert one or more claims of confidentiality for information submitted on a Comprehensive Assessment Information Rule (CAIR) form, please answer, pursuant to 40 CFR 740.219, all the following questions in the space provided. Type all responses. If you need more space to answer a particular question, please use additional sheets. If you use additional sheets, be sure to include the section, number, and (if applicable) subpart of the question being answered, and write your facility's name and Dun & Bradstreet Number in the lower right-hand corner of each sheet. A completed copy of this form must accompany all submissions containing one or more claims of confidentiality. Failure to do so will result in the waiver of your claim of confidentiality.

EPA has identified six information categories as those which encompass all claims of confidentiality. These are: Submitter identity (h); Substance identity (i); Volume manufactured, imported, or processed (j); Use information (k); Process information (l); and Other information (m). Respondents who assert a CBI claim on the reporting form must mark the letter(s) (h through m) that represent(s) the appropriate category(ies) of confidentiality in the box adjacent to the question, and answer the questions in this form.

Respondents who assert a CBI claim for information submitted under CAIR must also provide EPA with sanitized and unsanitized versions of their submissions. The unsanitized version must be complete and contain all information being claimed as confidential. The sanitized copy must contain only information not claimed as confidential. EPA will place the second copy of the submission in the public file. Failure to submit the second copy of the form at the time the respondent submits the reporting form containing confidential information or after receipt of a notice from EPA thereafter will result in a waiver of the respondent's claim of confidentiality.

Please indicate the CAS Registry Number (if known) or chemical name (if the CAS Registry Number is not known) for the substance that is the subject of this form:

584-84-9

If you are reporting on a tradename, please provide the tradename for the substance that is the subject of this form:

Does this form contain CBI? [] Yes [X] No

If the answer to this question is yes, you must bracket the text claimed as CBI. Any unbracketed information may be placed in the public file.

[] Mark (X) this box if you attach a continuation sheet.

A. All Claims. Respondents who assert any CBI claims must answer the following questions in addition to the appropriate questions from sections B through G, below:

(1) For what period do you assert a claim of confidentiality? If a claim is to extend until a certain event or point in time, please indicate that event or time period. If the period indicated is longer than 2 calendar years, explain why. If different periods of protection are required for different categories of information, please so indicate.

(2) Has the information that you are claiming as confidential been or will it be disclosed to individuals outside your company?

☐ Yes ☐ No

If so, what, if any, restrictions apply to the use or further disclosure of the information?

(3) Briefly describe the physical and procedural restrictions, if any, within your company on the use and storage of the information you are claiming as confidential. What other steps have you taken to prevent the undesired disclosure of the information by others?

(4) Does the information you are claiming as confidential appear or is it referred to in advertising, promotional, or safety materials for the substance or an end-product containing the substance?

☐ Yes ☐ No

Does it appear or is it referred to in professional or trade publications?

☐ Yes ☐ No

If so, indicate why the information should nonetheless be considered confidential.

☐ Mark (X) this box if you attach a continuation sheet.

(5) If the information you wish to claim as confidential were to be disclosed to the public by EPA, how much difficulty would a new competitor have in entering the market for this substance, considering such constraints as capital and marketing costs, specialized marketing expertise, or unusual production processes?

(6) Has EPA, another Federal agency, or a Federal Court made any pertinent confidentiality determinations for information regarding this substance?

☐ Yes ☐ No

If so, please identify the entity and provide EPA with copies of such determinations.

B. Submitter Identity (code h). Respondents who assert CBI claims for submitter identity must also answer the following questions:

(1) Approximately how many competitors do you have in the market for this substance or the final product containing this substance?

(2) What harm, if any, would result from EPA's disclosure of the submitter identity? Provide detailed descriptions of both the probable harm from disclosure and the causal relationship between disclosure and harm.

(3) If you have also asserted a claim of confidentiality for substance identity, what harm to your company's competitive position would result from disclosure of your company's identity if the substance identity were to remain confidential?

☐ Mark (X) this box if you attach a continuation sheet.

C. Substance Identity (code i). Specific substance identity can be claimed as confidential only if that substance identity is confidential for purposes of the TSCA Chemical Substance Inventory. Respondents who assert CBI claims for substance identity must also answer the following questions:

- (1) (a) Has the substance been patented or disclosed in a patent in the U.S. or elsewhere?

☐ Yes ☐ No

If so, indicate the relevant patent(s) and the reasons why the substance identity should nonetheless be considered confidential.

Patent Number: _____

- (b) Exactly what information which does not appear in the patent would be disclosed to competitors by releasing the specific substance identity? Explain in detail how competitors could use this information.

- (c) Since the patent provides protection for the substance, why are you asserting confidentiality?

- (2) (a) In what form (i.e., product, effluent, emission, etc.) does this substance leave your site?

- (b) What measures have you taken to guard against the discovery of the substance identity by others?

☐ Mark (X) this box if you attach a continuation sheet.

(c) If the substance is formulated with other chemicals, list them, and state the concentration of the claimed substance in the mixture.

(3) (a) If the substance leaves the site in a product that is available to the public or your competitors, can the substance be identified by analysis of the product?

☐ Yes ☐ No

(b) Is it likely that a competitor has attempted or will attempt to chemically analyze the substance?

☐ Yes ☐ No

(c) Would the cost and difficulty of such analysis be great or small? Why?

(4) What harm, if any, would result from EPA's public disclosure of the specific chemical identity? Provide detailed descriptions of both the probable harm to your company from disclosure and the causal relationship between release and harm.

(5) Would public disclosure of the specific chemical identity reveal to your competitors the use of the substance or the process by which this substance is manufactured?

☐ Mark (X) this box if you attach a continuation sheet.

D. Volume Manufactured, Imported, or Processed (code j). Respondents who assert CBI claims for volume manufactured, imported, or processed must also answer the following questions:

(1) If you have also claimed submitter's name as confidential and EPA keeps confidential the link between your company identity and the volume manufactured, imported, or processed, your identity will not be associated in any way with that volume. In this case, what harm to your company's competitive position would result from disclosing that volume? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(2) If you have also claimed substance identity as confidential and EPA keeps confidential the link between the substance identity and the volume manufactured, imported, or processed, the substance identity will not be associated in any way with that volume. In this case, what harm to your company's competitive position would result from disclosing that volume? How could a competitor use that information? What is the causal relationship between the disclosure and the harm?

(3) If you have claimed neither submitter nor substance identity as confidential, what harm, if any, would result from release of your volume manufactured, imported, or processed? Provide a detailed description of both the harm and the causal relationship between disclosure and harm.

E. Use Information (code k). Respondents who assert CBI claims for use information must also answer the following questions:

(1) If you have also claimed submitter identity as confidential and EPA keeps confidential the link between your company identity and the use data, your identity will not be associated in any way with the use data. In this case, what harm to your competitive position would result from disclosing the use data? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

☐ Mark (X) this box if you attach a continuation sheet.

(2) If you have also claimed substance identity as confidential and EPA keeps confidential the link between the substance identity and the use data, the substance identity will not be associated in any way with the use data. In this case, what harm to your company's competitive position would result from disclosing the use data? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(3) If you have claimed neither submitter nor substance identity as confidential, what harm, if any, would result from release of your use information? Provide a detailed description of both the harm and the causal relationship between disclosure and harm.

F. Process information (code 1). Respondents who assert CBI claims for process information must also answer the following questions:

(1) If you have also claimed submitter identity as confidential and EPA keeps confidential the link between your company identity and process information, your identity will not be associated in any way with this information. In this case, what harm to your competitive position would result from disclosing the process information? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(2) If you have also claimed substance identity as confidential and EPA keeps confidential the link between the substance identity and the process information, the substance identity will not be associated in any way with the process information. In this case, what harm to your company's competitive position would result from disclosing the process information? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

☐ Mark (X) this box if you attach a continuation sheet.

(3) If you claimed neither submitter nor substance identity as confidential, what harm, if any, would result from release of your process information? Provide a detailed description of both the harm and the causal relationship between the disclosure and the harm.

G. Other information (code m). Respondents who assert CBI claims using the "other information" category, must also answer the following questions:

(1) Is the item confidential in and of itself, or is it confidential because it will reveal some other confidential information, whether or not that other information is reported on this form? If the latter, what is the information that will be revealed, and how would disclosure of the item in turn lead to disclosure of the other information?

(2) Describe with specificity the harm to your company's competitive position which would result from disclosing the information.

(3) If you have also claimed submitter identity as confidential and EPA keeps confidential the link between your company identity and this information, your identity will not be associated in any way with the item claimed. In this case, what harm to your competitive position would result from disclosing the item? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

(4) If you have also claimed substance identity as confidential and EPA keeps confidential the link between the substance identity and the item, the substance identity (other than category name) will not be associated in any way with the item claimed. In this case, what harm to your company's competitive position would result from disclosing the item? How could a competitor use this information? What is the causal relationship between the disclosure and the harm?

☐ Mark (X) this box if you attach a continuation sheet.

I certify that I have personally examined and am familiar with the information submitted in this CBI Substantiation Form and all attached documents. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

NAME

SIGNATURE

DATE SIGNED

TITLE

(_____) -

TELEPHONE NO.

☐ Mark (X) this box if you attach a continuation sheet.